Compact disc player CD740

00B/01B/05B

Service
Service
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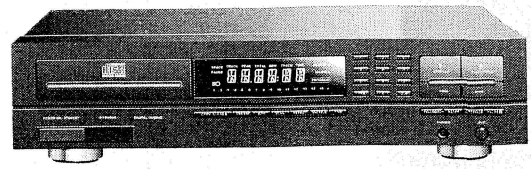

Service Manual

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4822 725 24058

PHILIPS

PHILIPS

PCS 60 730

TECHNICAL SPECIFICATIONS

General

1.Mains voltage	/00B	: 230V (+6 -10%)
	/05B	: 240V (±10%)
2.Mains frequency		: 50-60 Hz
3.Mains voltage selection only /01B		: 110-127V/230-240V
4.Power consumption mains, standby		: < 3W

Remote Control

Internal: RC5

Line output

1.Number of channels	: 2
2.Output voltage	: 2 Vrms ± 2 dB
3.Unbalance left-right	: max. 1 dB
4.Output resistance	: 1 kΩ
5.Amplitude linearity	: max. ± 0.3 dB from 20 Hz to 20 kHz
6.Phase non-linearity	: max 7.0° from 20 Hz to 16 kHz
7.Signal to noise ratio	: min. 95 dB from 20 Hz to 20 kHz
8.Dynamic range (-60 dB)	: min. 85 dB from 20 Hz to 20 kHz
9.Total harmonic distortion + noise	: min. 80 dB from 20 Hz to 20 kHz
10.Intermodulation distortion	: min. 70 dB from 20 Hz to 20 kHz
11.Out-band attenuation	: min. 35 dB (above 40 kHz)
12.Channel separation	: min. 80 dB from 20 Hz to 20 kHz
13.Automatic switched deemphasis with time constant 15/50 μs	
14.Non linearity at -90 dB	: ± 2 dB
	: typ. 0 dB

Variable headphone

1.Output voltage	: max. 5 Vrms ± 2dB
2.Unbalance left-right	: max. ± 0.6 dB
3.Output resistance	: 120 Ω
4.Load impedance range	: 32 Ω to 600 Ω
5.Output power	: 0 to 34 mW into 32 Ω load
	: 0 to 52 mW into 120 Ω load
	: 0 to 29 mW into 600 Ω load

Audio specs in case of 600 Ω load at 4 Vrms voltage output

6.Signal to noise ratio	: min. 80 dB
7.Dynamic range	: min. 75 dB (20 Hz -20 kHz)
8.Total harmonic distortion	: min. 70 dB (20 Hz - 20 kHz)
9.Intermodulation distortion	: min. 67 dB (20 Hz - 20 kHz)
10.Channel separation	: min. 70 dB (1 kHz)
	: min. 65 dB (31.5 Hz - 16 kHz)

Dimensions and weight

1.Apparatus tray closed	: WxDxH 435 x 300 x 90/106 mm
2.Apparatus tray open	: WxDxH 435 x 445 x 90/106 mm
3.Weight	: 4 kg

Optical read-out system

1.Laser type	: Semiconductor AlGaAs
2.Wavelength	: 780 nm ± 20 nm
3.Light output (c.w.)	: max. 0.5 mW

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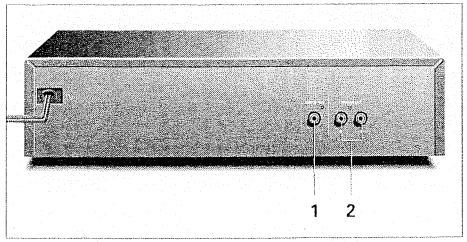
ACCESSORIES

With this player are supplied:
- a connection cable;
- a remote control;
- batteries for the remote control.

POWER SUPPLY SETTING

- Check that the type plate on the rear of your player indicates the correct supply voltage.
- If your mains supply voltage is different, consult your dealer or our Service Organisation.
- *Certain versions of this player are equipped with a voltage selector at the bottom of the player which enables you to set the player to the correct mains voltage yourself:*
  position 120 V – for all mains voltages between 110V and 127 V;
  position 230 V – for all mains voltages between 220V and 240 V.

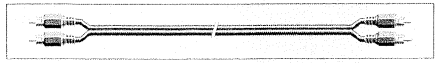
CONNECTIONS



1 **DIGITAL OUT**
This output supplies a digital signal and can therefore only be connected to an input which is suitable for this signal.
Use here a lead with one cinch plug on either end.

Never connect this socket to a non-digital input of an amplifier, such as AUX, CD, TAPE, PHONO, etc!

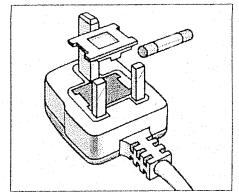
2 **ANALOG OUT**
For the connecting cable to the amplifier.



- Insert a red plug into the 'R' socket and the other plug into the 'L' socket.
- Insert the two other plugs into the corresponding sockets of the CD or AUX input of your amplifier.
  You can also use the TUNER or TAPE IN-connection, but ***never*** the PHONO input!

FITTING A MAINS PLUG *(U.K. only)*

This apparatus is fitted with an approved moulded 13 Amp plug. To change a fuse in this type of plug proceed as follows:



- Remove fuse cover and fuse.
- Fix new fuse which should be a BS1362 5A, A.S.T.A. or BSI approved type.
- Refit the fuse cover.

If the fitted plug is not suitable for your socket outlets, it should be cut off and an appropriate plug fitted in its place.

If the mains plug contains a fuse, this should have a value of **5A**. If a plug without a fuse is used, the fuse at the distribution board should not be greater than **5A**.

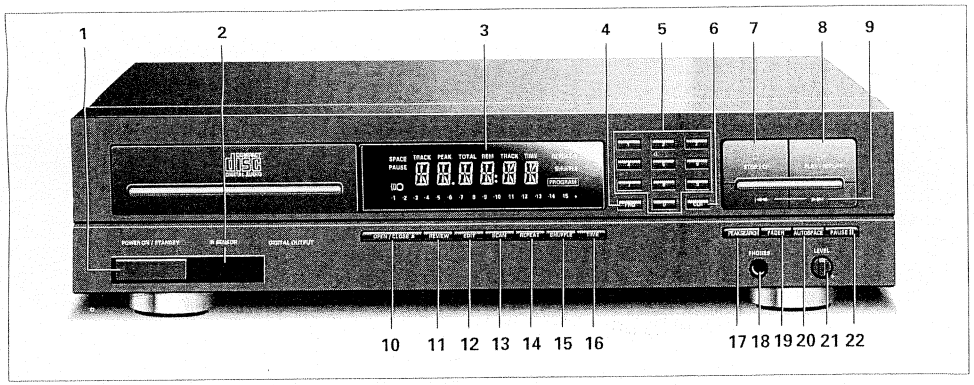
NOTE
The severed plug must be disposed to avoid a possible shock hazard should it be inserted into a 13A socket elsewhere.

HOW TO CONNECT A PLUG

The wires in the mains lead are coloured in accordance with the following code:
BLUE – "NEUTRAL" ("N") and BROWN – "LIVE" ("L").
As these colours may not correspond with the colour markings identifying the terminals in your plug, proceed as follows:
- The BLUE wire must be connected to the terminal which is marked with the letter "N" or coloured BLACK.
- The BROWN wire must be connected to the terminal which is marked with the letter "L" or coloured RED.
- Do *not* connect either wires to the earth terminal in the plug which is marked by the letter "E" or by the safety earth symbol or coloured green or green-and-yellow.

Before replacing the plug cover, make certain that the cordgrip is clamped over the sheath of the lead – not simply over the two wires.

FUNCTIONAL OVERVIEW



FRONT OF PLAYER

1 **POWER ON/STANDBY** – Switching on and off.

2 **I**(nfra) **R**(ed) **SENSOR** – Receives the signals from the remote control.

3 **Display** – Informs you about the functioning of the player.

4 **PRG** (programme) – Opening and closing the memory when compiling a programme.

5 **1-0 digit keys**
- Selecting another track during play.
- Selecting a track to start play with.
- Selecting tracks when compiling a programme.
- Entering the recording time when making a tape recording.

6 **CLR** (clear)
- Erasing a programme.
- Erasing track numbers from a programme.

7 **STOP/CP**
- Stopping play.
- Erasing a programme (CP = Clear Programme).

8 **PLAY/REPLAY**
- Starting play.
- Returning to the beginning of a track.

9 ⏮ and ⏭
- Selecting another track during play.
- Selecting a track to start play with.
- Fast search to a particular passage during play.
- Selecting the recording mode when making a tape recording.
- Selecting the recording time when making a tape recording.

10 **OPEN/CLOSE** – Opening and closing the CD compartment. The compartment also closes *when the front is pressed briefly.*

11 **REVIEW** – Checking a programme.

12 **EDIT** – Activating the EDIT function when making a tape recording.

13 **SCAN** – Automatically playing the beginning of each track.

14 **REPEAT** – Repeating play.

15 **SHUFFLE** – Playing in random order.

16 **TIME** – Selecting the time information you want to see.

17 **PEAK SEARCH** – Searching the loudest passage (peak) on a CD or in a programme when making a tape recording.

18 **PHONES** – Connecting headphones.

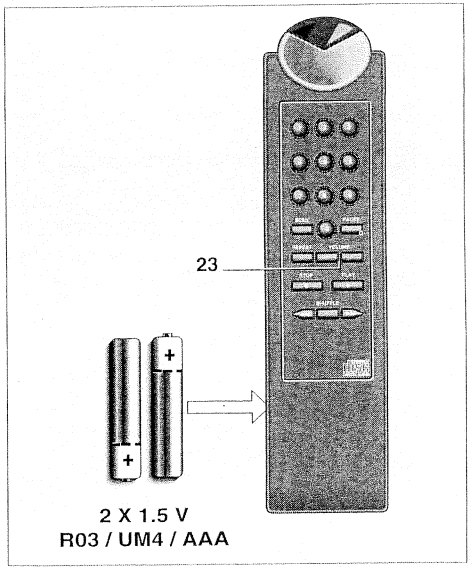
19 **FADER** – Fading in and out during play.

20 **AUTO SPACE** – Automatic insertion of an extra pause between tracks.

21 **LEVEL** – Adjusting the volume when listening with headphones.

22 **PAUSE** – Interrupting play.

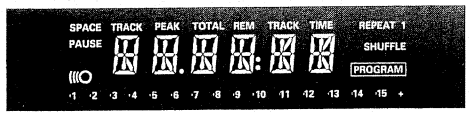
REMOTE CONTROL



- The life of the batteries of the remote control is around one year. For replacement only use batteries of the type R03, UM4 or AAA.
- The buttons on the remote control have the same functions as the corresponding ones on the player.
- Extra buttons:

23 **– VOLUME +** – Adjusting the sound level when the player is connected via the ANALOG OUT output or the DIGITAL OUT output to an amplifier or HiFi system *without* its own control.

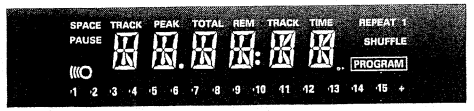
DISPLAY



SPACE – Lights up when an extra pause is inserted between the various tracks.
PAUSE – Lights up when play is interrupted.
(((– Lights up when the player receives a command from the remote control.
TRACK – Indicates:
- what track is being played;
- the number of tracks on the CD or in a programme.

PEAK
- Flashes when the loudest passage (peak) on a CD or in a programme is being searched.
- Lights up when the loudest passage (peak) has been found.

FUNCTIONAL OVERVIEW



TRACK TIME – Indicates the elapsed playing time of the track being played.
REM(aining) **TRACK TIME** – Indicates the remaining playing time of the track being played.
TOTAL REM(aining) **TIME** – Indicates the remaining playing time of the CD or a programme.
TOTAL TIME – Indicates the total playing time of the CD or a programme.
REPEAT – Lights up when you repeat a CD or a programme.
REPEAT 1 – Lights up when you repeat a track.
SHUFFLE – Lights up when the tracks are played in random order.
PROGRAM – Flashes when a programme is being compiled.
1-15 track number indicator – Shows the number of tracks on the CD.
+ – Lights up when there are more than 15 tracks on the CD.

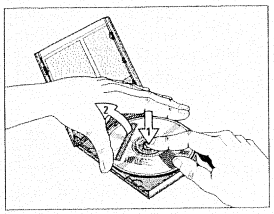
Display messages:

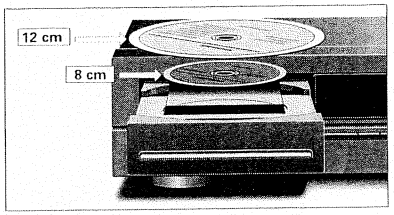
READ	Lights up when the CD's contents list is being scanned.
no DISC	Lights up when there is no CD in the CD compartment.
NO AUDIO DISC	Lights up when inserting or playing a non audio CD (CD-ROM, CD-I or CDV).
WRONG TRACK	Lights up if you select a non-existent track number.
GO TO PLAY	Lights up if you try to activate a function for which you must first start play.
GO TO STOP	Lights up if you try to activate a function for which you must first stop play.

NORMAL PLAYBACK (PLAY/REPLAY)

NOTE! *Use only audio CDs; no CD-ROM, CD- I or CDV.*

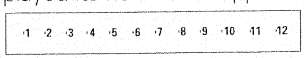
- Press POWER ON/STANDBY ***1*** to switch the player on.
- Open the CD compartment by pressing OPEN/CLOSE ***10***.
- *OPEN* lights up.
- Insert an audio CD, ***printed side up***, and close the compartment.

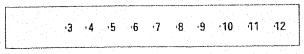




- *CLOSE* lights up, followed by *READ*. The number of tracks and the playing time of the CD are shown on the display.

- Press PLAY/REPLAY ***8*** to start play.
  You can also press PLAY/REPLAY immediately after inserting the CD; the compartment then closes automatically.
  You can also close the CD compartment by pressing its front; playback will then start automatically.
- The number indicator shows how many tracks are on the CD; when a track has been played its number disappears.





- The track being played is always shown under TRACK and its elapsed playing time is shown under TRACK TIME.

- Play will stop after the last track.
- Press POWER ON/STANDBY ***1*** to switch the player off.

You can interrupt playback by pressing PAUSE ***22*** ; PAUSE then lights up.
Press PLAY/REPLAY ***8*** to restart; if you *first* press PAUSE again and *then* PLAY/REPLAY, the current track starts again from the beginning.
You can also restart play by pressing SCAN ***13***, SHUFFLE ***15*** or the 1-0 digit keys ***5***.
If you press PLAY/REPLAY *during play*, the current track starts again from the beginning.
You can stop playback by pressing STOP/CP ***7*** or OPEN/CLOSE ***10***.

SELECTING ANOTHER TRACK DURING PLAY (1-0)

- Key in the desired number (numbers consisting of two figures must be keyed in ***within 2 seconds***).
- The music stops and a moment later the selected track begins to play.

You can also select the number by pressing ►►| or |◄◄ ***9*** *(less than 0.5 seconds)*.

SEARCHING FOR A PASSAGE DURING PLAY (|◄◄ ►►|)

- Hold |◄◄ ***9*** down to search backwards to the beginning.
- Hold ►►| ***9*** down to search forwards to the end.

The searching speed is determined by how long a key is pressed:
- the first 2 seconds fairly slowly, with sound;
- then at the maximum speed, with no sound.

If you reach the end of the last track and release ►►|, play will resume a few seconds before the end of the CD.

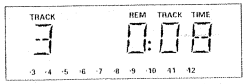
STARTING WITH A PARTICULAR TRACK (1-0)

- Key in the desired number (numbers consisting of two figures must be keyed in ***within 2 seconds***).
- Play starts from the selected track.

You can also select the number by pressing ►►| or |◄◄ ***9*** *(less than 0.5 seconds)* and then pressing PLAY/REPLAY ***8***.

SCANNING A CD (SCAN)

- Press SCAN ***13*** before or during play.
- If the CD compartment was open, it will now close.
- *SCAN* lights up for 2 seconds and the first 10 seconds of each track are played in turn; 10 seconds are counted down each time under REM TRACK TIME.



- When the playerreaches a track which you wish to hear in full, press SCAN again or PLAY/REPLAY ***8***.

PLAYING THE CD IN RANDOM ORDER (SHUFFLE)

- Press SHUFFLE ***15*** before or during play.
- If the CD compartment was open, it will now close.
- SHUFFLE lights up and all the tracks are now played in a random order.

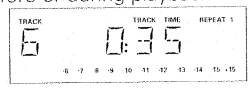
- Press SHUFFLE again if you wish to return to normal play.

If you press |◄◄ ***9***, you will return to a track which has already been played.
If you press ►►| ***9***, you will select any one of the following tracks.
If you press REPEAT ***14***, *twice* the tracks will be repeated in a different order each time, although the first track played will always be the same.

REPEATING PLAY (REPEAT)

Repeating a track:

- Press REPEAT ***14*** before or during playback.
- REPEAT 1 lights up; the track will now be repeated continuously.



- Press REPEAT *twice* to stop the track being repeated.

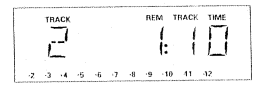
Repeating the CD:

- Press REPEAT ***14*** *twice* before or during playback.
- REPEAT lights up; the CD will now be repeated continuously.

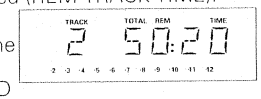
- Press REPEAT again to stop the CD being repeated.

CALLING UP OTHER TIME INFORMATION (TIME)

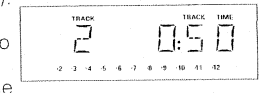
- Press TIME ***16*** whenever you want to know theremaining playing time of the track being played (REM TRACK TIME).



- Press TIME again if you wish to know the remaining playing time of the entire CD (TOTAL REM TIME).



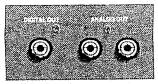
- Press TIME again if you wish to return to the elapsed playing time indication of the current track (TRACK TIME).



PLAYBACK

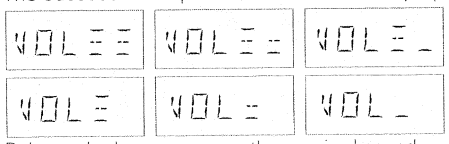
ADJUSTING THE SOUND LEVEL (– VOLUME +)

NOTE!



– Use the – VOLUME + keys *(on the remote control)* only if the player is connected via the ANALOG OUT output or the DIGITAL OUT output to an amplifier or HiFi system *without* its own control.
– The setting chosen with – VOLUME + will be cancelled when the player is switched off.

• Hold – VOLUME ***23*** pressed down.
– *VOLUME* lights up; the output signal from the player will now decrease gradually.
– The successive steps are shown on the display.



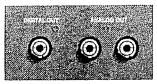
• Release the key as soon as the required sound level is obtained.
• Hold VOLUME + ***23*** pressed down.
– *VOLUME* lights up; the output signal will now increase again gradually to the maximum level.
– The successive steps are shown on the display.

• Release the key as soon as the required sound level is obtained.

SETTING THE FADE- IN AND FADE-OUT TIME (FADER)

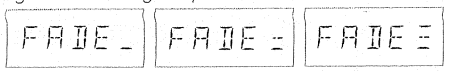
NOTE!

The FADER function can be used if the player is connected to the amplifier or the system via the ANALOG OUT output or the DIGITAL OUT output.



• During play press FADER ***19***.
– The sound level will now gradually decrease (FADE OUT), after which the player will go into the PAUSE mode.

• Press FADER again.
– Play continues and the sound level will increase again to the originally set level (FADE IN).



INSERTING AN EXTRA PAUSE (AUTO SPACE)

• Press AUTO SPACE ***20***.
– SPACE lights up; during play an extra pause of 4 seconds will be inserted between the various tracks.

• Press AUTO SPACE again to delete the extra pause.

SEARCHING THE LOUDEST PASSAGE (PEAK SEARCH)

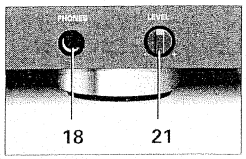
• In STOP mode, press PEAK SEARCH ***17***.
– PEAK starts flashing and the CD or the programme will now be scanned for the loudest passage (the peak).

– The display shows the track being scanned and its elapsed playing time.
– When the loudest passage has been found it will be repeated continuously (from 2 seconds before the peak until 2 seconds after the peak)

• You can now adjust your recording device.
• You can stop the scan by pressing STOP/CP ***7*** or OPEN/CLOSE ***10***; if you press PLAY/REPLAY ***8***, the CD or the programme will be played from the beginning.

LISTENING WITH HEADPHONES (PHONES)

• Connect headphones with a 6.3 mm jack plug to the PHONES socket ***18***.
• The sound level is adjusted with the LEVEL control ***21***.



PROGRAMMING

STORING A PROGRAMME (PRG and 1-0)

You can store 30 tracks from each CD in any required sequence in a programme.
FULL lights up if you exceed the maximum of 30 tracks.

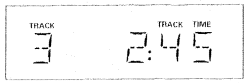
• In STOP mode, press PRG (programme) ***4*** to open the memory.
– *PROGR* lights up and PROGRAM starts flashing.
• Key in the required numbers; every number you key in will be directly included in the programme.
– Each time you key in (= store) a track number, the number of tracks and the playing time of your programme will be shown under TRACK and TOTAL TIME.

– The track number indicator always shows which numbers have been stored.
• Press PRG (programme) to quit the PROGRAMME mode.
• Press PLAY/REPLAY ***8*** to play the programme.

USE O - 9 lights up if you press ⏮ or ⏭ ***9*** while programming.

CHECKING THE PROGRAMME (REVIEW)

• Press REVIEW ***11*** prior to, during or after programmed play.
– *REVIEW* lights up.
– All the numbers appear in the programmed sequence under TRACK.



– Under TRACK TIME you will see the playing time of each track.

NO PROGRAM lights up if no track numbers have yet been stored.
With REVIEW you can proceed more rapidly to the next block of information.

PLAYING THE PROGRAMME (PLAY/REPLAY)

• Press PLAY/REPLAY ***8***.
– Playback starts with the first number of the programme.

All keys (except EDIT ***12***, PRG(programme) ***4***, CLR(clear) ***6*** and PEAK SEARCH ***17***) can be used during programmed play.
Search for a particular passage is only possible within the track being played.

ERASING A PROGRAMME (STOP/CP, CLR or OPEN/CLOSE)

In PLAY mode:
• Press OPEN/CLOSE ***10*** or STOP/CP ***7*** *(twice)*.

In STOP mode:
• Press OPEN/CLOSE ***10***, CLR(clear) ***6*** or STOP/CP ***7***.

– The programme has now been erased.

ERASING A TRACK FROM THE PROGRAMME (CLR)

• Press REVIEW ***11*** before or after programmed play (STOP mode).
– *REVIEW* lights up.
– All the numbers appear in the programmed sequence under TRACK.
• Press CLR(clear) ***6*** as soon as the number you wish to erase appears.
– The number disappears from the number indicator; it has now been erased.
– The display shows the remaining tracks and programme time for a few seconds.

NO PROGRAM lights up if no track numbers have yet been stored.

EDIT

The EDIT function has two recording modes in which you can store the recording time of the tape in the player memory.

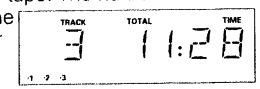
EDIT NORMAL – The player will determine which tracks fit on each side of the tape and will stop after the last track. The tracks will be recorded in the order in which they appear on the CD or in the programme.
EDIT OPTIMAL – The player now calculates the combination of tracks that will optimize the use of available recording time.

NOTE!

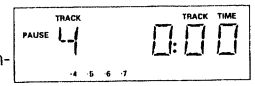
- The EDIT function ***cannot*** be used for CDs containing more than 30 tracks.
- The – VOLUME + keys *(on the remote control)* may ***not*** be used during recording as they affect the strength of the signal from the player.

RECORDING IN THE EDIT MODE

- If required you can *first* search the loudest passage on the CD or in the programme and adjust your recording device. This can also be done *after* selecting the recording mode and the recording time.
  For this see 'SEARCHING THE LOUDEST PASSAGE (PEAK SEARCH)' on page 10.
- In STOP mode, press EDIT ***12*** to activate the EDIT mode.
  – The display shows *NORMAL* (default setting).
- If required you can insert an extra pause between the various tracks by pressing AUTO SPACE ***20***.
  – SPACE then lights up.
- With |◄◄ ►►| ***9*** you can now select OPT(imal), CANCEL or NORMAL again.
  – The display shows *OPT(imal)*, *CANCEL*, or *NORMAL* again.
- Press EDIT ***12*** to store the required recording mode (NORMAL or OPTimal).
  – If you select CANCEL, the EDIT mode will be cancelled and the player will go back to STOP mode.
  – As soon as you have stored the recording mode the display shows *C90* (default setting).
- With |◄◄ ►►| ***9*** you can now select the required recording time:
  C100, C105, C120, C30, C45, C60, C75 or *C90*.
  Other recording times can be selected using the 1-0 digit keys ***5***.
  In EDIT NORMAL mode the recording time must be at least equal to the playing time of the *first* track on the CD or in the programme.
  In EDIT OPT(imal) mode the recording time must be at least equal to the playing time of the *shortest* track on the CD or in the programme.
  – WRONG TIME lights up if you select a 'wrong' time.
- Press EDIT ***12*** to store the required recording time.
  – The CD player will now go back to STOP mode
  – The track number indicator shows which tracks fit onto side A of the tape. The number of tracks and their playing time will be shown under TRACK and TOTAL TIME.



- You can now record the entire CD or a programme from it.
- Press PLAY/REPLAY ***8***.
  – The numbers for side A of the tape will be played one after the other. If AUTO SPACE has been selected, after each track an extra pause of 4 seconds (AUTOSPACE) will be inserted.
  – After the last track that fits on side A of the tape, the CD player will go into PAUSE mode; PAUSE lights up.
  – The track number indicator shows which tracks fit onto side B of the tape. Under TRACK you will see the number of the first track to be recorded.



- Turn the tape over or select the tape travel direction for side B.
- Press PLAY/REPLAY ***8***.
  – The remaining tracks will now be played.
  – After the last track play will stop; *EDIT CANCELLED* lights up.

NOTE!

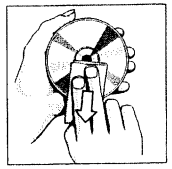
- As soon as you press PLAY/REPLAY ***8*** the other player functions will temporarily be switched off to prevent the recording being interfered with; *EDIT ACTIVE* lights up if you press one of the other buttons during recording.
- You can quit the EDIT mode by pressing STOP/CP ***7*** or OPEN/CLOSE ***10***; *EDIT CANCELLED* then lights up.
- *EDIT NOT POSSIBLE* lights up if you try to record a CD containing more than 30 tracks.

ADDITIONAL INFORMATION

MAINTENANCE

The CDs

- Never write on the printed side of a CD.
- Do not attach any stickers to the CD.
- Keep the shiny surface of the disc clean.
  Use a soft lint-free cloth and always wipe the disc in a straight line from centre to edge.



- Never use cleaning agents for conventional records.
- Detergents or abrasive cleaning agents should not be used either.

The player

- A chamois leather slightly moistened with water is sufficient for cleaning the player.
- Do not use cleaning agents containing alcohol, spirits, ammonia or abrasives.

RECYCLING

Please observe the local regulations regarding the disposal of packing materials, exhausted batteries and old equipment.

1. All redundant packaging material has been omitted. We have done our utmost to make the packaging easy separable into three mono-materials:
   – cardboard (box)
   – expandable polystyrene (buffer)
   – polyethylene (bags, protective foam sheet)
2. Your set consists of materials which can be recycled if disassembled by a specialized company.
3. Do not dispose of exhausted batteries with your household waste.

TROUBLE SHOOTING

If a fault occurs, run through the points listed below before taking your player for repair.
If the fault remains, try to clear it by ***switching the player off and on again***. If this also fails to help, consult your dealer.
Under no circumstances should you repair the player yourself as this will invalidate the guarantee!

SYMPTOM	POSSIBLE CAUSE	REMEDY
– Playback of the CD does not start or interruption of playback.	– The CD has been loaded upside down. – No CD inserted. – The CD is badly scratched or dirty. – Moisture condensation on the lens.	• Reload the CD, label side up. • Insert a CD, label side up. • Clean the CD with a soft, lint-free cloth. • Leave the CD player in a warm environment until the moisture evaporates.
– Sound skips (at the same part).	– The CD is dirty.	• Clean the CD with a soft, lint-free cloth.
– The CD skips tracks.	– The CD is damaged or dirty.	• Replace or clean the CD.
– Playback does not start from the first track.	– PRG (programme) or SHUFFLE activated.	• Switch off REPEAT or clear programme.
– No sound or bad sound.	– Loose or wrong connections. – Strong magnetic fields near the CD player.	• Check connections. • Find another place for the unit or change connections.
– Volume is too low.	– Sound level has been adjusted too low with the – VOLUME + keys on the remote control.	• Adjust sound level.
– No sound or bad sound on headphones.	– Level control set to – position. – Headphones plug is dirty.	• Set level control • Clean plug.
– Remote control does not function.	– Batteries are empty.	• Replace the batteries.
– Remote control commands are not properly received.	– The distance between remote control and CD player is larger than 10 metres.	• Use remote control receiver EM 2200/2201. • Reduce the distance between remote control and CD player.

ESD

(GB) WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD).
Careless handling during repair can reduce life drastically.
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance.
Keep components and tools also at this potential.

(F) ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux decharges statiques (ESD).
Leur longevite pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise a leur manipulation.
Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfiler le bracelet serti d'une résistance de securite.
Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

(D) WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegen elektrostatische Entladungen (ESD).
Unsorgfältige Behandlung bei der Reparatur kann die Lebensdauer drastisch vermindern.
Sorgen sie dafur, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand mit dem Massepotential des Gerätes verbunden sind.
halten Sie Bauteile und Hilfsmittel ebenfalls auf diesem Potential.

(NL) WAARSCHUWING

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).
Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen.
Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.
Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

(I) AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).
La loro longevità potrebbe essere fortemente ridatta in caso di non osservazione della più grande cauzione alla loro manipolazione.
Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza.
Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

(GB)
Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

(NL)
Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde worden toegepast.

(D)
Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden für Reparaturen sind Original-Ersatzteile zu verwenden.

(I)
Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati pezzi di ricambiago identici a quelli specificati.

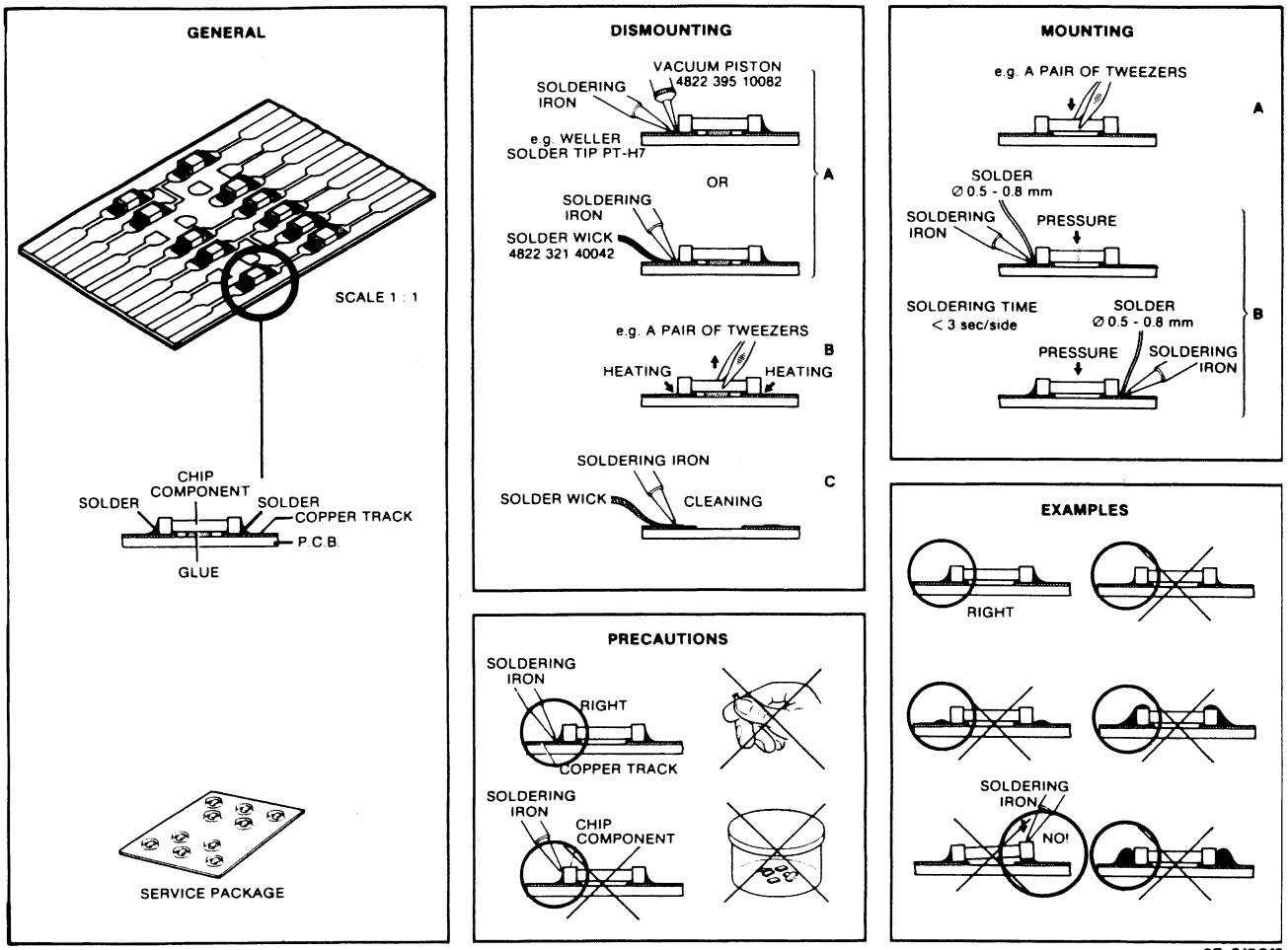
(F)
Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

CAUTION INVISIBLE LASER RADIATION WHEN OPEN AVOID EXPOSURE TO BEAM
VARO! AVATTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASER SÄTEILYLLE ÄLÄ KATSO SÄTEESEN
VARNING OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD BETRAKTA EJ STRÅLEN
ADVERSEL USYNLIG LASERSTRÅLING VED ÅBNING. UNDGÅ UNSAETTELSE FOR STRÅLING
DANGER INVISIBLE LASER RADIATION WHEN OPEN AVOID DIRECT EXPOSURE TO BEAM
VORSICHT UNSICHTBARE LASERSTRAHLUNG WENN ABDECKUNG GEÖFFNET NICHT DEM STRAHL AUSSETSEN

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne"

SERVICING HINTS

In the set chip components have been applied. For disassembly and assembly of chip components see the figure below.



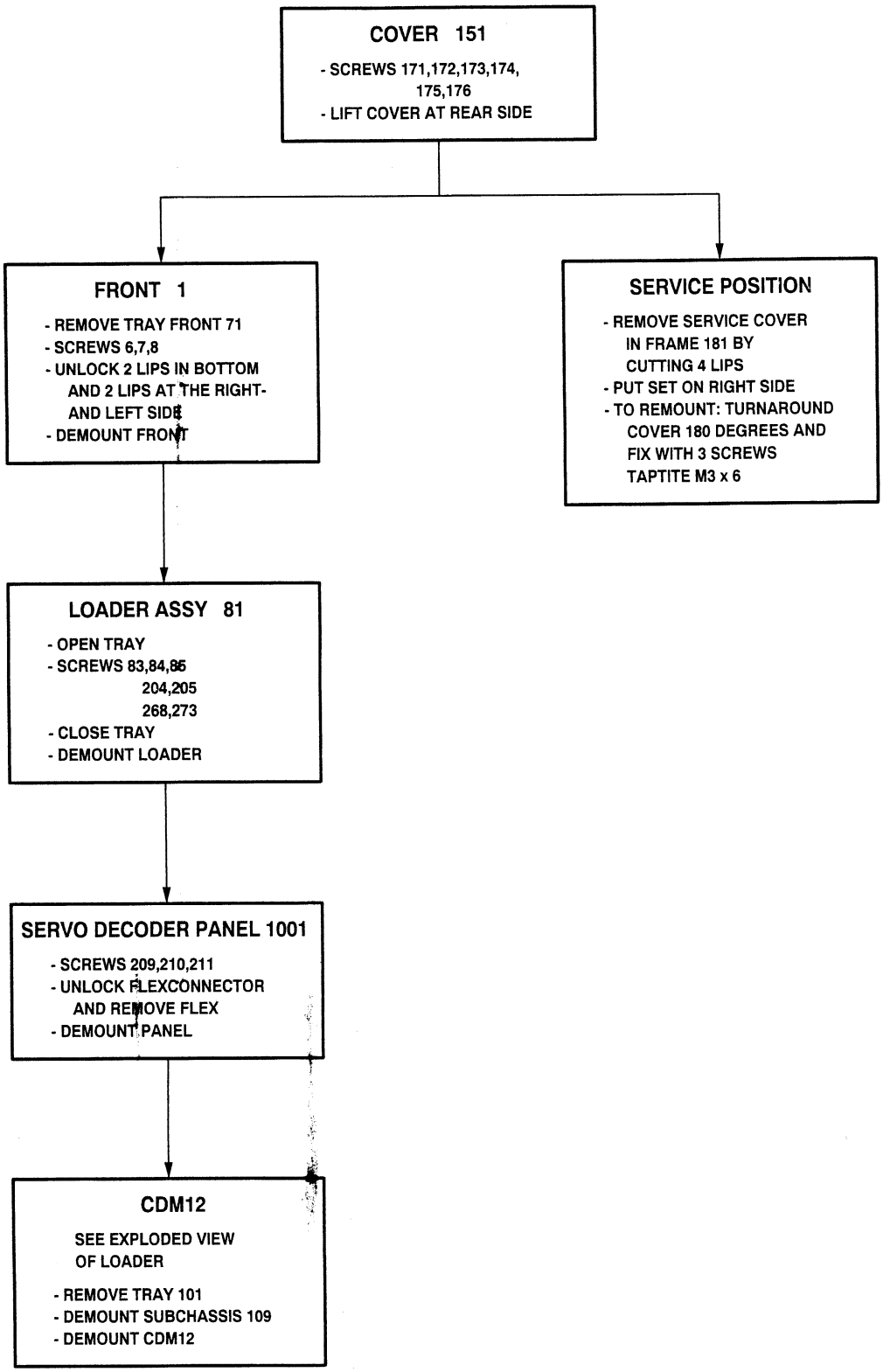
27 012C12

SERVICE TOOLS

Audio signal disc	4822 397 30184
Disc without errors (test disc 5) + disc with DO errors, black spots and fingerprints (test disc 5A	4822 397 30096
Disc (65 min 1kHz)without pause	4822 397 30155
Max. diameter disc (58.0 mm)	4822 397 60141
Torx screwdrivers	
Set (straight)	4822 395 50145
Set (square)	4822 395 50132
13th order filter	4822 395 30204

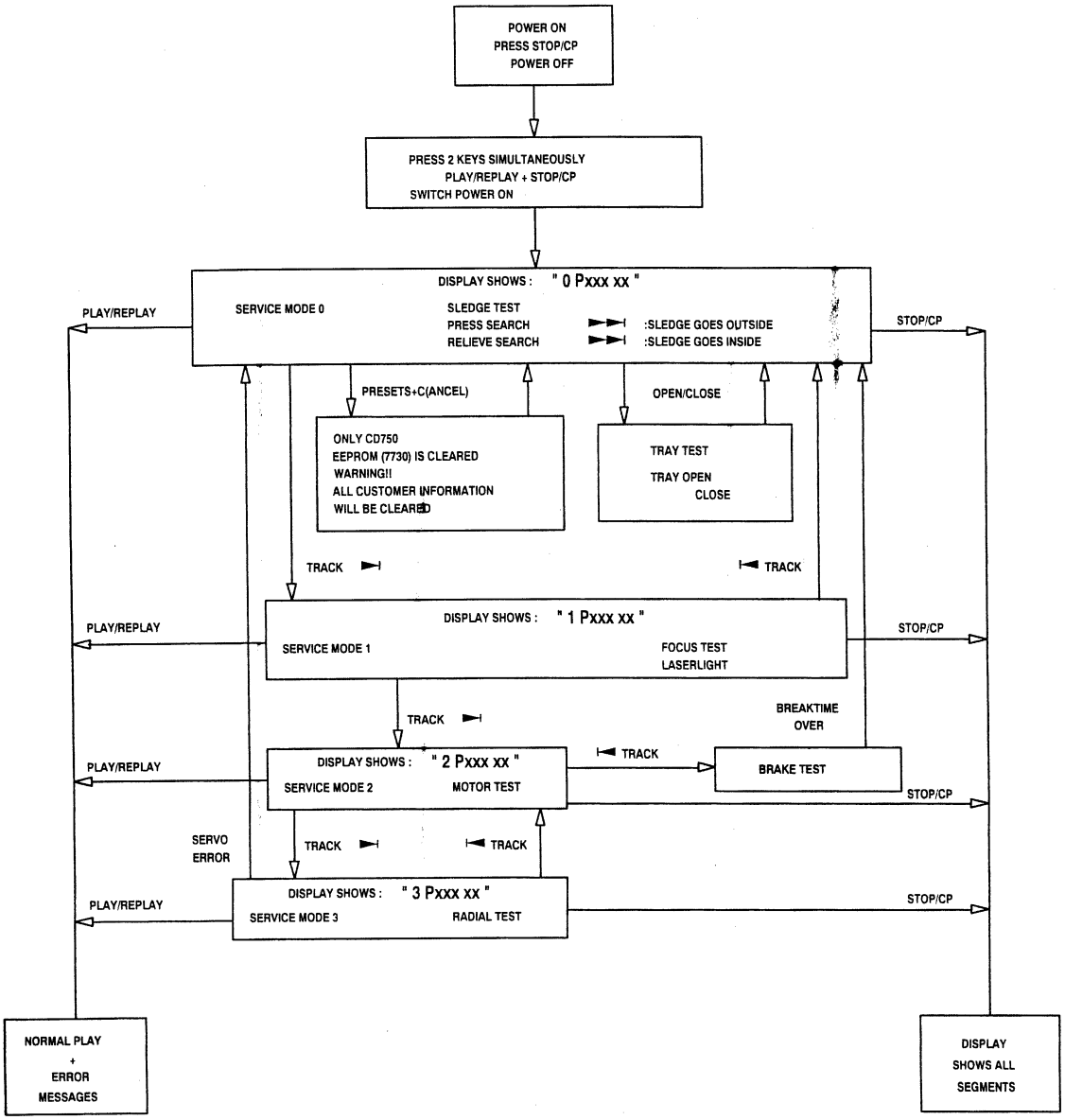
DISMANTLING INSTRUCTIONS

OPEN EXPLODED VIEW ON PAGE 33


COVER 151
- SCREWS 171,172,173,174, 175,176
- LIFT COVER AT REAR SIDE
FRONT 1
- REMOVE TRAY FRONT 71
- SCREWS 6,7,8
- UNLOCK 2 LIPS IN BOTTOM AND 2 LIPS AT THE RIGHT- AND LEFT SIDE
- DEMOUNT FRONT
SERVICE POSITION
- REMOVE SERVICE COVER IN FRAME 181 BY CUTTING 4 LIPS
- PUT SET ON RIGHT SIDE
- TO REMOUNT: TURNAROUND COVER 180 DEGREES AND FIX WITH 3 SCREWS TAPTITE M3 x 6
LOADER ASSY 81
- OPEN TRAY
- SCREWS 83,84,86 204,205 268,273
- CLOSE TRAY
- DEMOUNT LOADER
SERVO DECODER PANEL 1001
- SCREWS 209,210,211
- UNLOCK FLEXCONNECTOR AND REMOVE FLEX
- DEMOUNT PANEL
CDM12
SEE EXPLODED VIEW OF LOADER
- REMOVE TRAY 101
- DEMOUNT SUBCHASSIS 109
- DEMOUNT CDM12

HAS1125
9345

SERVICE TEST PROGRAM



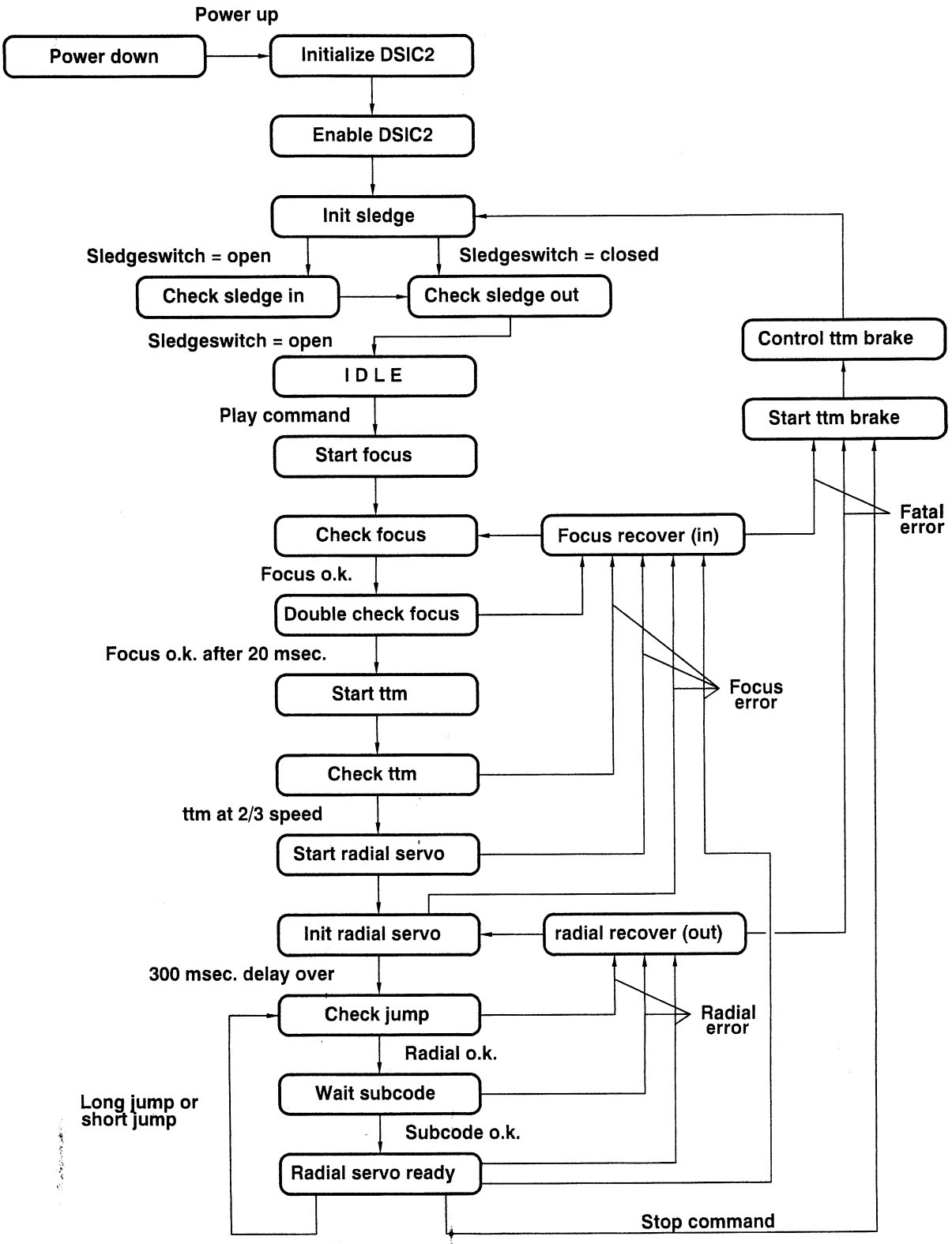
ERROR MESSAGES

-"SLEDGE ERROR"
-"FOCUS ERROR"
-"RADIAL ERROR"
-"MOTOR ERROR"
-"EEP ER"
-"EEP OK"

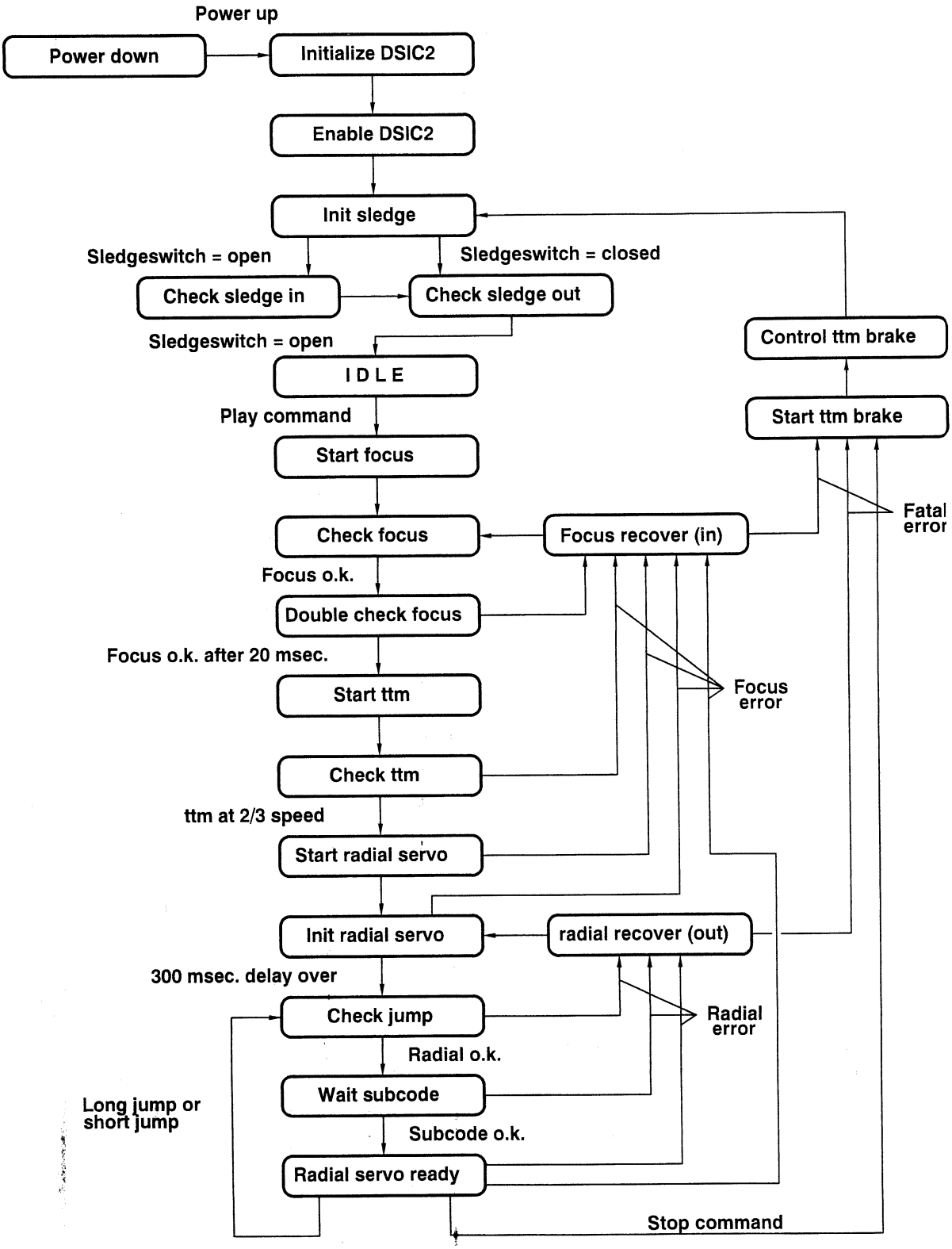
HA1120
930

Pxxx = PROGRAM OF MICROPROCESSOR
xx = VERSION OF PROGRAM

CDM 12.1 start up diagram.

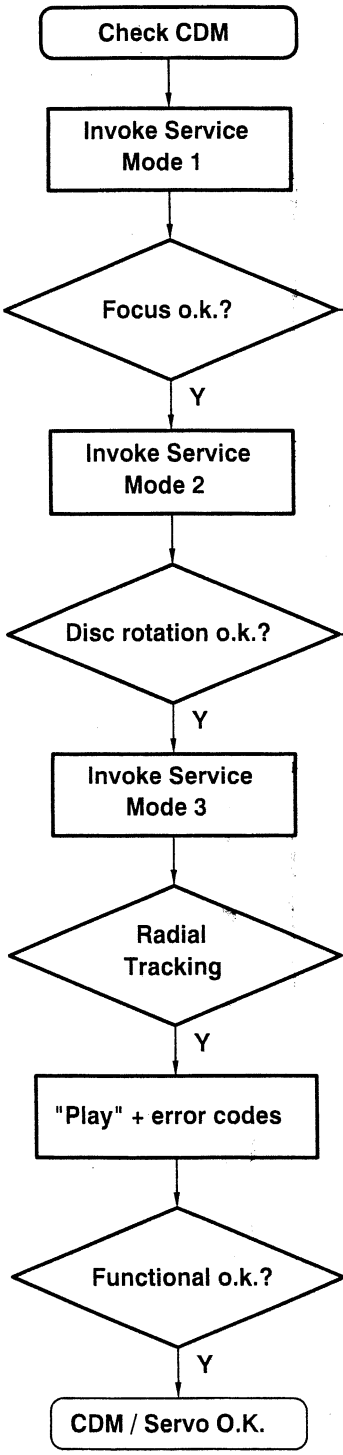


CDM 12.1 start up diagram.



FAULT FINDING GUIDE CDM 12.1

Main Fault Finding Guide CDM 12.1
System



Listen to kind of "scratching sound" while slowly turning the disc by hand.

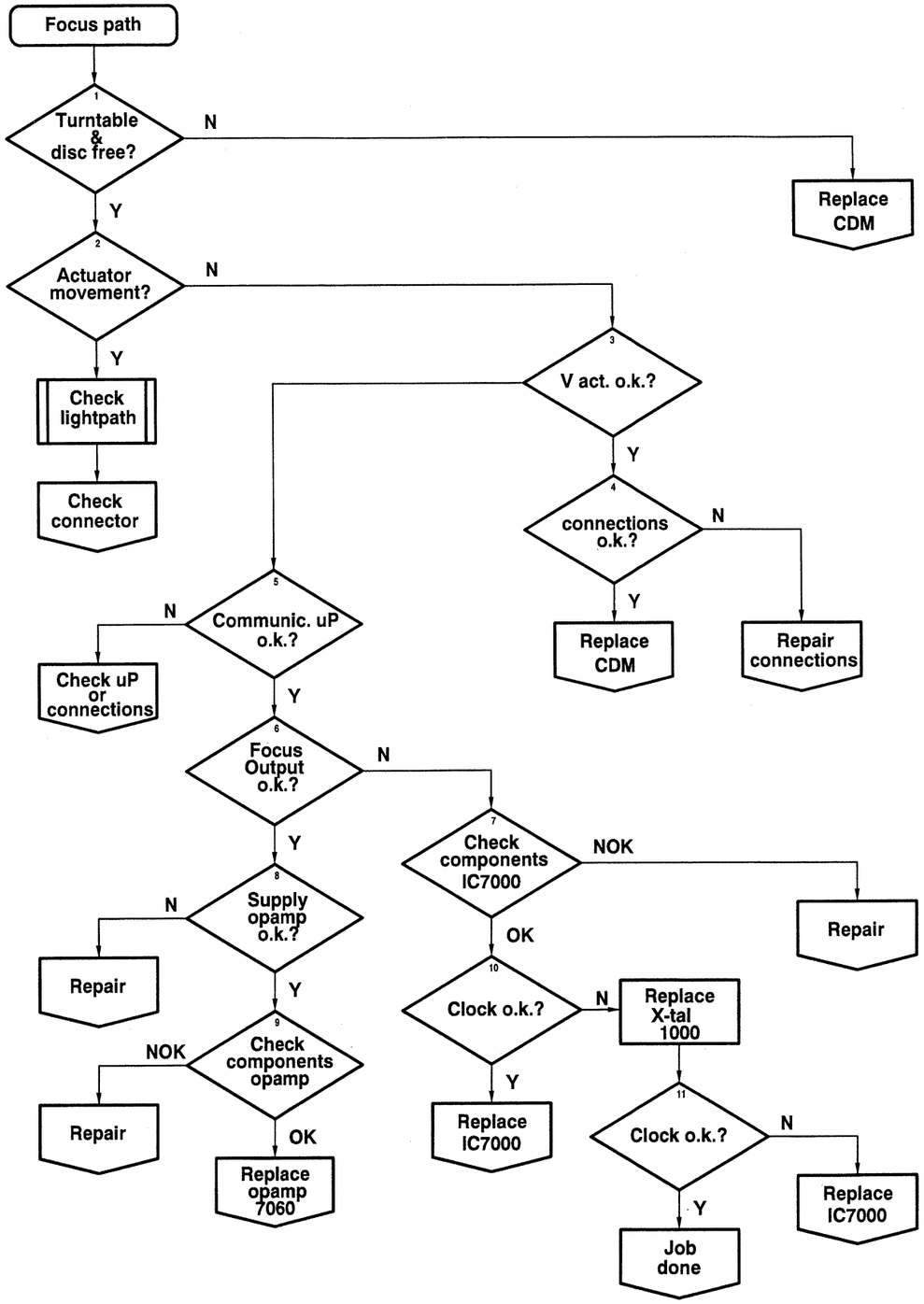
Disc is turning clock wise at normal speed.

Activity on RAD+
(pin 4 connector 1052)

*After "play" starts at track 1 at time 0:00.
*Go to outer track and start again at time 0:00 after max. 6 seconds.

*Try search function.

*When going from "Pauze" to "play" music has to restart at the same place.

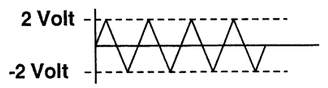


15

1)-Turntable and disc free?
Audible and visible control.

2)-Actuator movement?
Visual control.

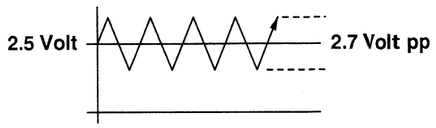
3)-Signals on actuator o.k.?
Triangle wave without disc.
See fig 1.



4)-Connections to actuator o.k.?
Check flex connector pin 2 and 3.

5)-Communication uP <-> IC7000.
SIDA activity (pin 27 of IC7000).

6)-Focus output o.k.?
See fig 2.
Measure with an 10k/3n3 low-pass filter.



7)-Components o.k.?
Check components R3010,R3011
C2012,C2013
X-tal 1000

8)-Power supply for opamp o.k.?
Check components R3006,R3007
C2008,C2009,C2071,C2074

9)-Check components o.k.?
Check components R3074,R3075,R3076,R3077
R3078,R3079
C2075,C2076

10) & 11)-Pin 17 of IC7000: a frequency of 8.46MHz?

WARNING ! ! ! LASER DAMAGE ! ! !

For measurements on the laser (flexconnector pin 1052-6), certain conditions are absolutely necessary for precaution of laser damage.

The instruction and sequence for measuring laser current is as follows:

-turn off mains power.
-wait for > 1 second
-connect a multimeter (high input impedance, not grounded accross resistor 3022. (*)
-turn on mains power and go to play mode.
-reading of measurement value (current = reading/4R7) (**)
-go to stop and turn off mains power.
-disconnect the multimeter.

* In case of a laser voltage measurement, connect the multimeter accross elcap 2025, using the same procedure as mentioned above.

* * If current is > 95 mA, you can be sure that the laser is defect;
If the current is increasing during reading (within +/- 10 seconds), you can be sure that the laser is severely damaged.

* 1)-Laser supply o.k.?
Voltage accross C2025: 4...5V

* * 2)-Laser current o.k.?
Voltage accross R3022: 150...450mV

3)-Lens clean?
Visual control. Check for dust,grease.
Take attention for the blue coating.

4)-Check inputs.
Switch back to service mode 0.
Connect a 2.4 MOhm resistor from
1052 - 9 to 5V: Voltage on pin 5 of IC7000 < 50mV.
1052 - 10 to 5V: Voltage on pin 6 of IC7000 < 50mV.
1052 - 12 to 5V: Voltage on pin 7 of IC7000 < 50mV.
1052 - 11 to 5V: Voltage on pin 10 of IC7000 < 50mV.
1052 - 8 to 5V: Voltage on pin 11 of IC7000 < 50mV.

5)-Diodes o.k.?
Use IR LED of remote control.
A half sine wave must be measured on the diodes (on pin 8,9,10,11,12 of conn. 1052) in the 10mV range.

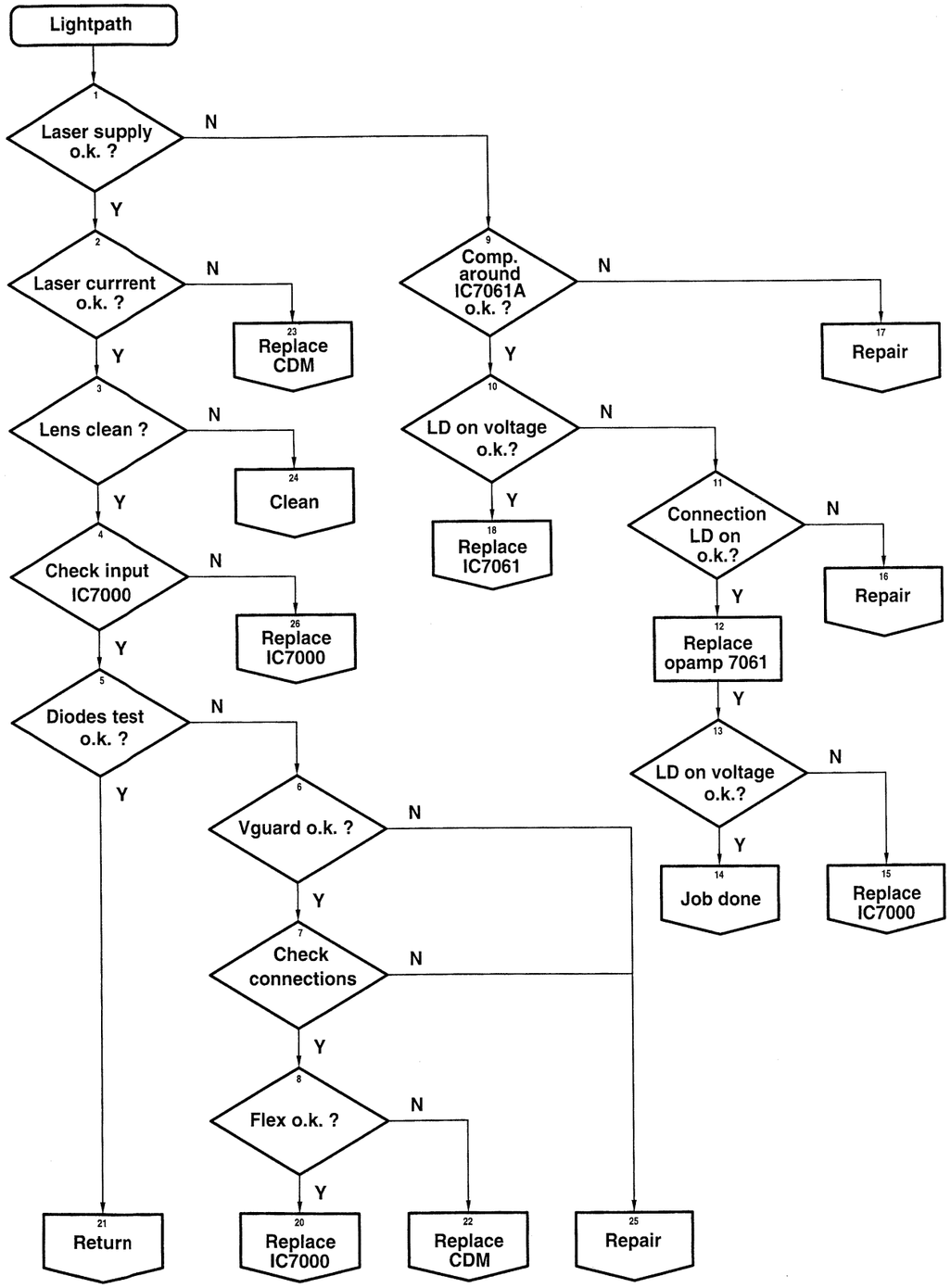
* 6)-V guard o.k.?
Voltage accross C2025: 4...5V

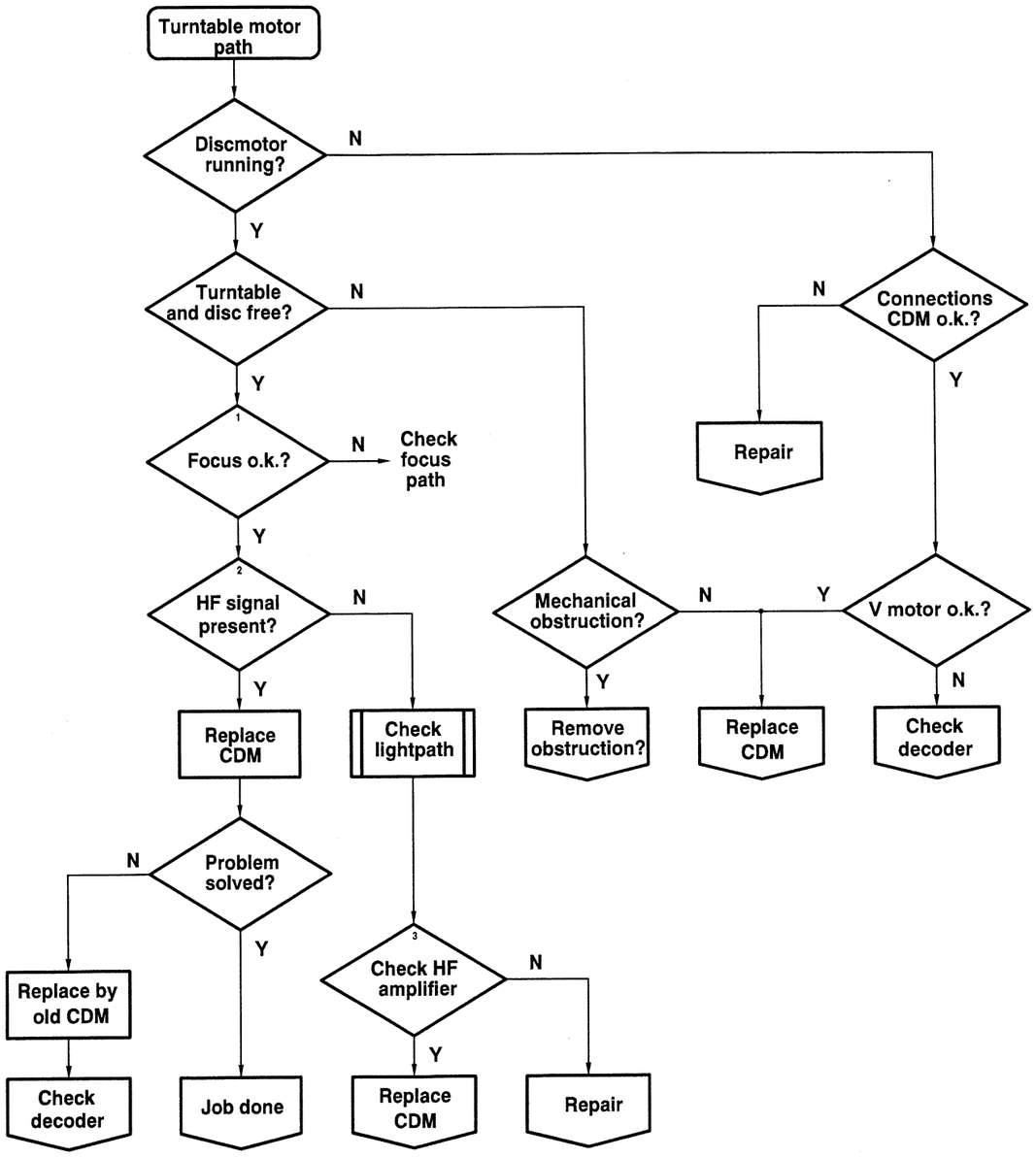
7)-Check connections between main PCB and CDM

8)-Flex o.k.?
Measure diode functions on CDM-flex

9)-Check components around IC7061
R3022,R3021,R3020
C2025,C2060,C2064

10)-LD ON voltage o.k.?
Measure on pin 2 of IC7000:4...5V.





17

1)-Still in focus (focus o.k.?).
Voltage at pin 9 of connector 1052 > 15mV.

2)-HF-signal present.
VHFI (R3048) > 900mV pp. (testpoint 65).

3)-Check HF-amplifier.

* Sypply 5V?

* Testpoint 17=1.4...1.9V DC?

* VHFI DC =2.9...3.6V?

4)-V motor o.k.?

V motor < 2V: replace CDM.
V motor > 2V: check decoder part.

1)-Radial tracking o.k.?
No OTD (testpoint 67) activity.

2)-Check driver 7060A.
Supply: C2071,C2074.
Components: C2067,C2068,C2069,R3068,R3069,R3070,R3071,R3072,R3073.

3)-Check connections radial actuator.
Switch power off.
Measure impedance of 18 Ohm(+/-20%) between pin 1 and pin 4 of connector 1052.

4)-Check impedance on flex.
Power off.
Disconnect CDM-flex.
Measure impedance of 18 Ohm(+/-20%) between pin 1 and pin 4 of connector 1052.

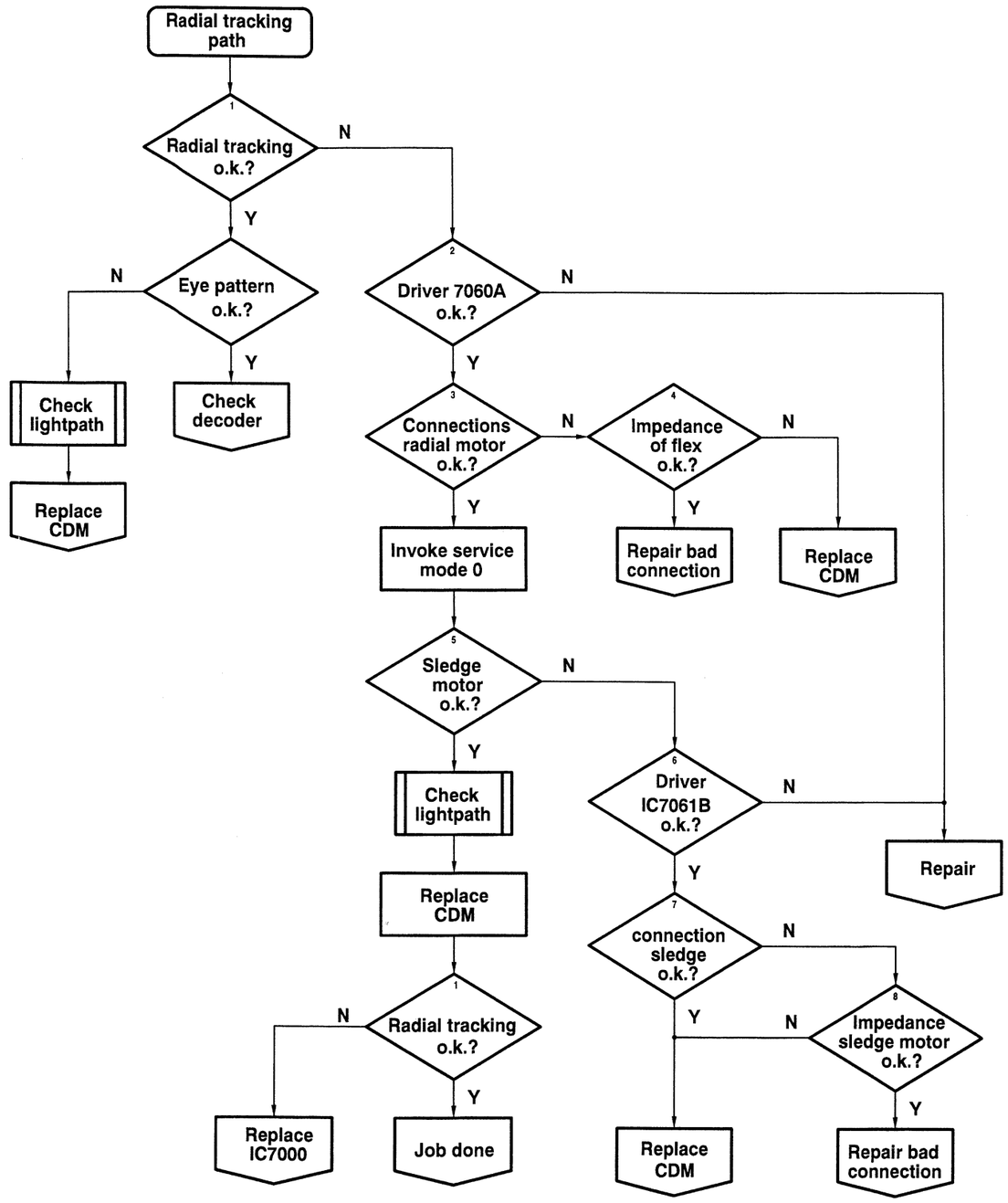
5)-Test sledge.
Power on.
Invoke service mode 0.
Move sledge out (whith search forward key).
Sledge moves to init position after releasing key.
Not o.k. if sledge doesn't move,doesn't reach the outer position or makes a ratling noise at the inner side.

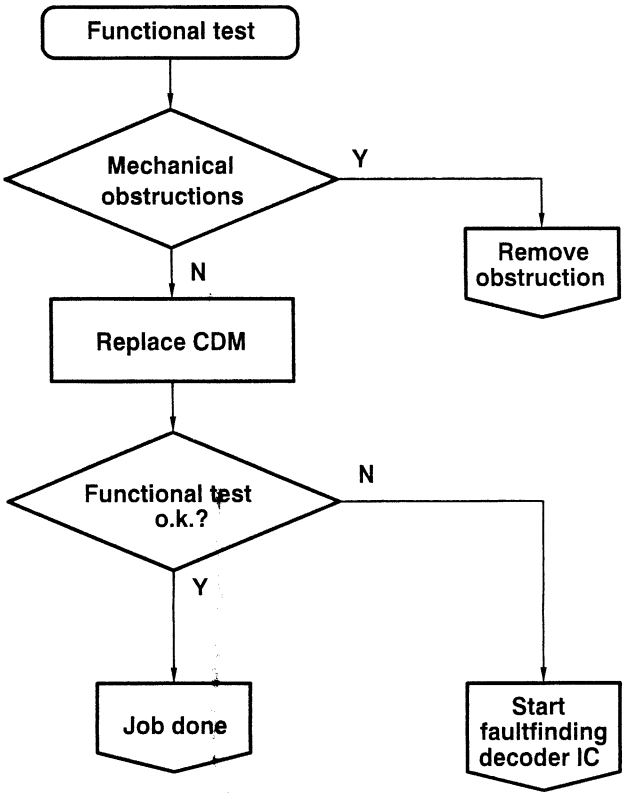
6)-Check driver 7061B.
Supply: C2060,C2064.
Components: C2062,C2063,C2066,R3060,R3062,R3064,R3065,R3066,R3067.

7)-Check connections of sledge drive.
Power off.
Measure impedance of 11 Ohm(+/-20%) between pin 5 and pin 6 of connector 1070.

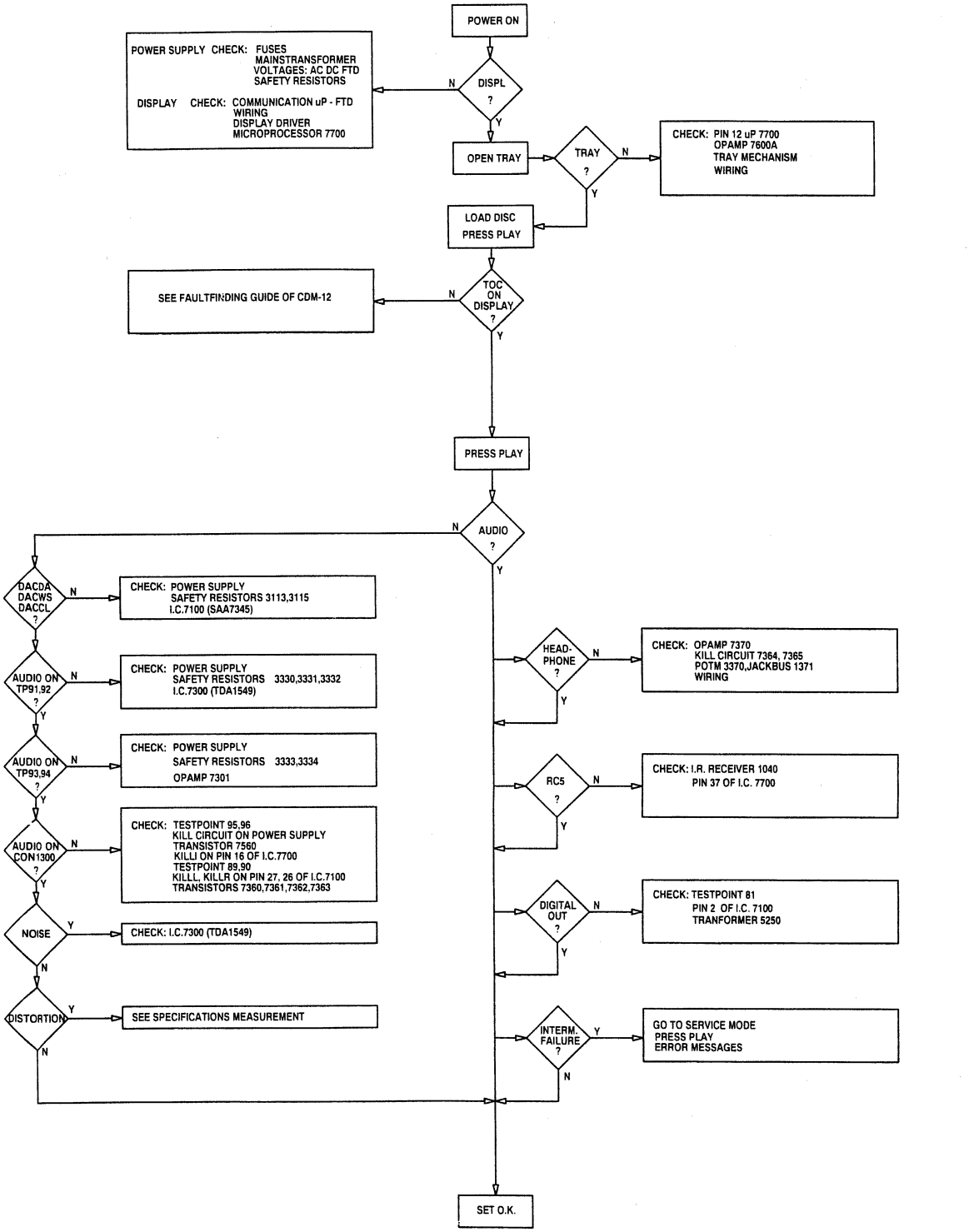
8)-Check sledge motor.
Remove CDM.
Measure impedance of 11 Ohm(+/-20%) between motor terminals.

18




Functional test
Mechanical obstructions
Y
Remove obstruction
N
Replace CDM
Functional test o.k.?
N
Y
Job done
Start faultfinding decoder IC

FAULTFINDING DIAGRAM

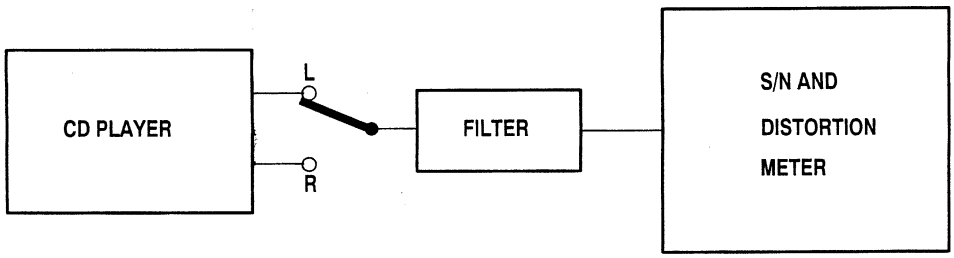


HAS1128
9351

SPECIFICATIONS MEASUREMENT

SIGNAL	AUDIO SIGNALS DISC 1	TESTPOINT	REMARKS
ANALOG OUT LEFT	TOTAL HARMONIC DISTORTION TRACKS 10 - 23	FILTER OUTPUT	SEE TECHNICAL DATA
ANALOG OUT RIGHT			SEE DRAWING
ANALOG OUT LEFT	SIGNAL-TO-NOISE RATIO TRACK 1 REFERENCE LEVEL TRACK 49	FILTER OUTPUT	SEE TECHNICAL DATA
ANALOG OUT RIGHT			SEE DRAWING

FILTER = 13TH ORDER FILTER 4822 395 30204



e.g. SOUND TECHNOLOGIE
ST1700B

ABBREVIATIONS

BCK	Bit clock input of BCC-DAC TDA1549
CFLG	correction flag output
CL	interface clock input line
CL11	11.2896 MHz clock output
CL16	16.9344 MHz system clock output
CLA	4.2336 MHz microprocessor clock output
CLO	Clock output
CRIN	crystal/resonator input
CROUT	crystal/resonator output
D1-D4	Central diode input of TDA1301
D1-D5	Photodiode signals from CDM12 mechanism
DA	interface data I/O line
DACCL	Bit clock output of CD6 decoder SAA7345
DACDA	Data output of CD6 decoder SAA7345
DACWS	Word select output of CD6 decoder SAA7345
DATA	serial data output/Data input of BCC-DAC TDA1549
DOBM	biphase mark output
FO	Focus actuator output
FOC+	+Connection of focus actuator
FOC-	Ground connection of focus actuator
HF	High-Frequency signal to decoder input
HFIN	comparator signal input
HFREF	comparator common-mode input
IREF	Reference current output
ISLICE	current feedback from data slicer
LDON	Laser drive on
MISC	general purpose DAC output
MOTO1	motor output 1
MOTO2	motor output 2
NRST	Reset input
OTD	Off track detector
PORE	power-on reset enable input(active low)
R1-R2	Satellite diode signal input
RA	Radial actuator output
RAB	interface R/W and acknowledge input
RAD+	+Connection of radial actuator
RAD-	Ground connection of radial actuator
SCLK	serial bit clock output
SICL	Serial interface clock
SIDA	Serial interface data
SILD	Serial interface load
SL OUT	+Connection of sledge motor
SL	Sledge output
TEST1	test input
TEST2	test input
TS1-TS2	Test inputs
V1-5	Versatile input pins
VOL	Left channel output
VOR	Right channel output
WCLK	Word clock output
WS	Word select input of BCC-DAC TDA1549
XTLI	Oscillator input
XTLO	Oscillator output
XTLR	Oscillator reference

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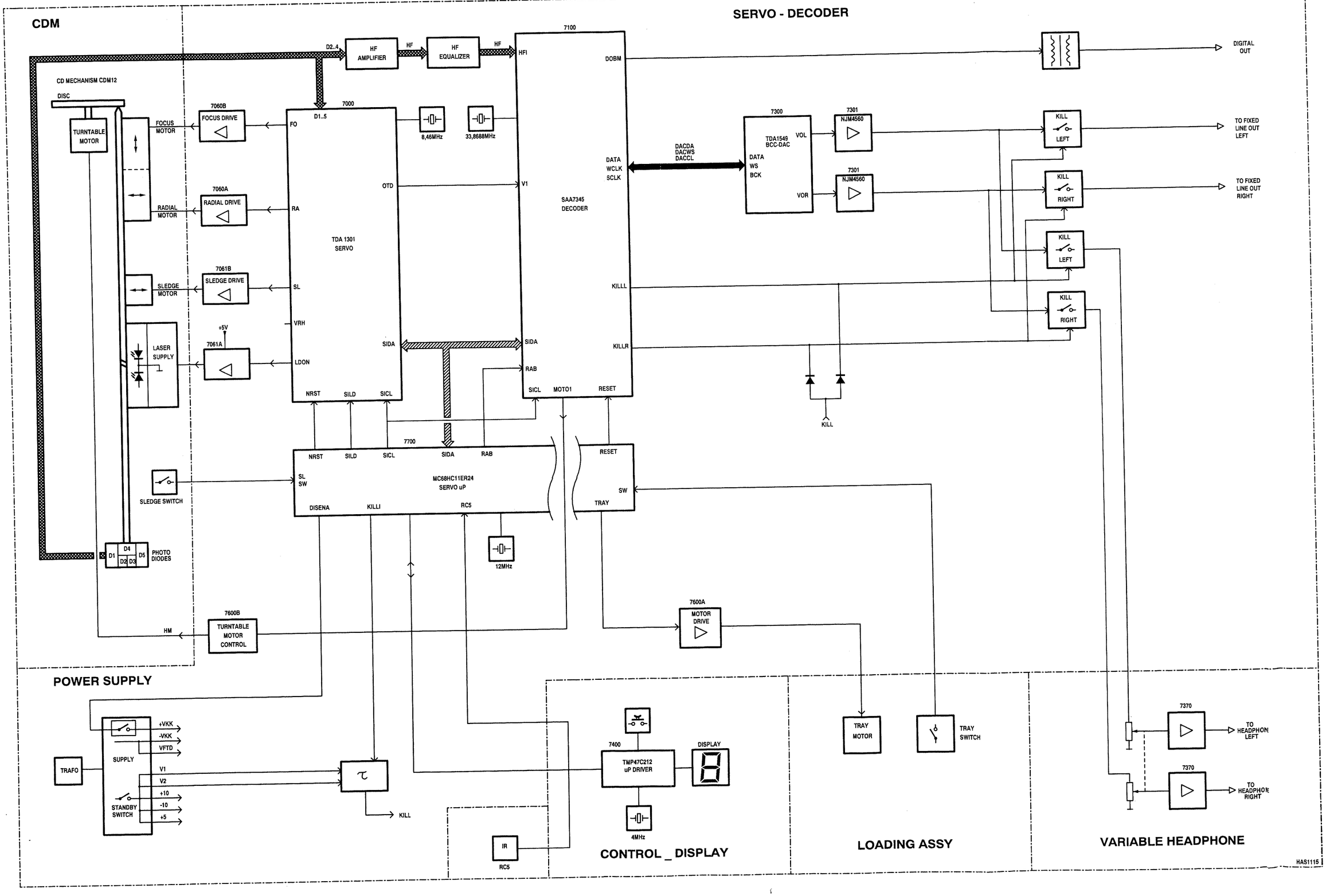
BLOCK DIAGRAM



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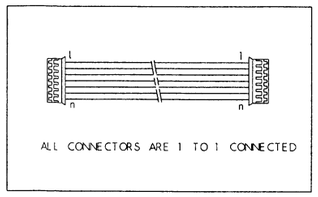
WIRING DIAGRAM



8001

1=10VAC SWITCH
2=10VAC SWITCH
3=10VAC
4=10VAC

STAND-BY

1507

8001

SERVO-DECODER

1301

1=HPR
2=GND
3=HPL
4=-10
5=+10

1506

1508

1=10VAC SWITCH
2=10VAC SWITCH
3=10VAC
4=10VAC

1=6VAC
2=6VAC
3=26.5VAC
4=10VAC
5=GND
6=10VAC

8009

8002

1076

1=+VKK
2=-VKK
3=VFTD

8003

1=DIG. OUT ERROR
2=GND

1073

1=TRAY SWITCH
2=GND
3=GND
4=TRAY MOTOR

1071

1=+5
2=GND
3=SCK
4=SDATO
5=ACK
6=SDIS
7=DISRES
8=RC5

1403

8004

1=RAD+
2=FOC-
3=FOC+
4=RAD-
5=GND
6=+5V LASER
7=+5VC
8=DI
9=D2
10=D3
11=D5
12=D4

1052

1070

1=GND
2=SLEDGE SWITCH
3=TURN TABLE MOTOR
4=GND
5=GND
6=SLEDGE MOTOR

1=red
2=red
3=blue

6=white
5=green
4=white

TO MAINS

TRAFO

TO FRAME

9022

1=HPR
2=GND
3=HPL
4=-10
5=+10

1006

HEAD-PHONE

1005

8009

LOADER

CDM

red

SLEDGE MOTOR

6=white
5=blue

2=orange
1=black
4=yellow
3=green

CONNECTOR CDM 6V

SLEDGE SWITCH

TTM
red

CTM
red

TRAY MOTOR

TRAY SWITCH

4=grey
3=red
2=brown
1=black

9021

1003

1=+5VA
2=RC5
3=GND

DISPLAY

1=+5VA
2=RC5
3=GND

1002

1007

1001

1=+5
2=GND
3=SCK
4=SDATO
5=ACK
6=SDIS
7=DISRES
8=RC5

1004

1=+VKK
2=-VKK
3=VFTD

8004

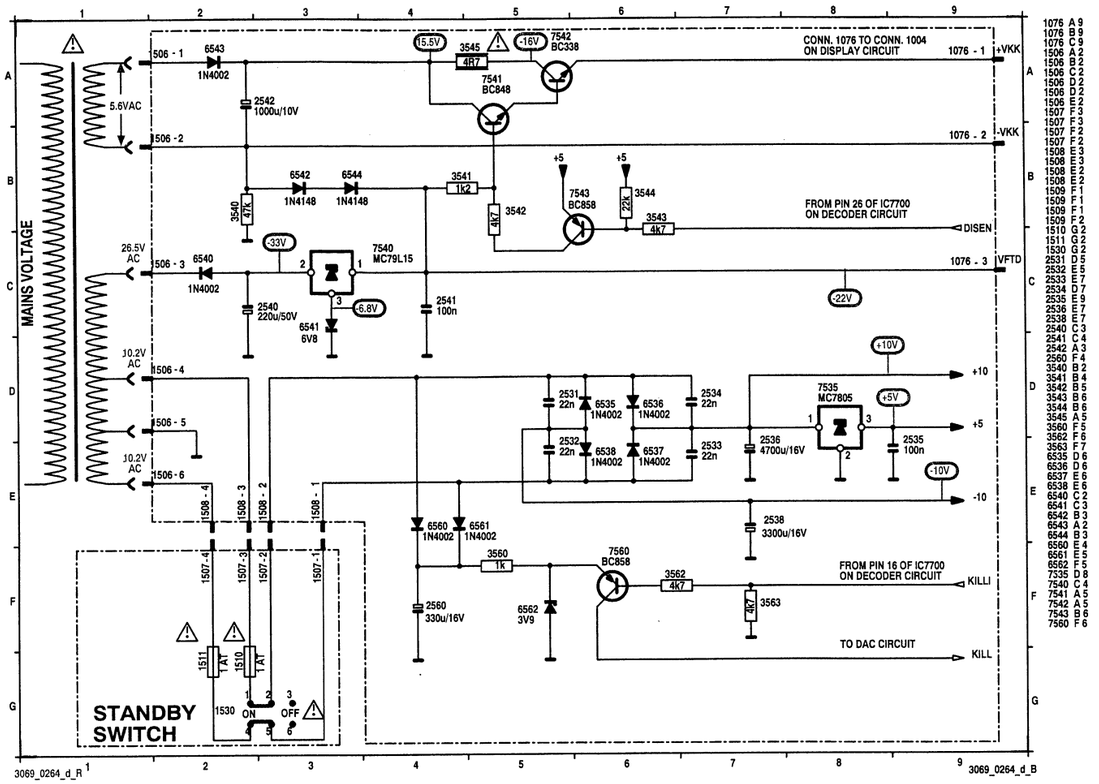
8003

9020

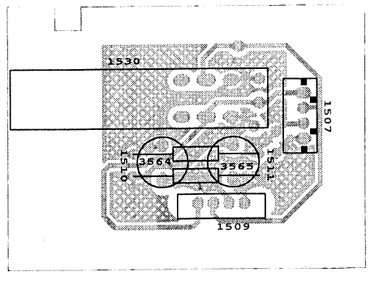
TO FRAME

HASIII8
9340

POWER SUPPLY CIRCUIT DIAGRAM

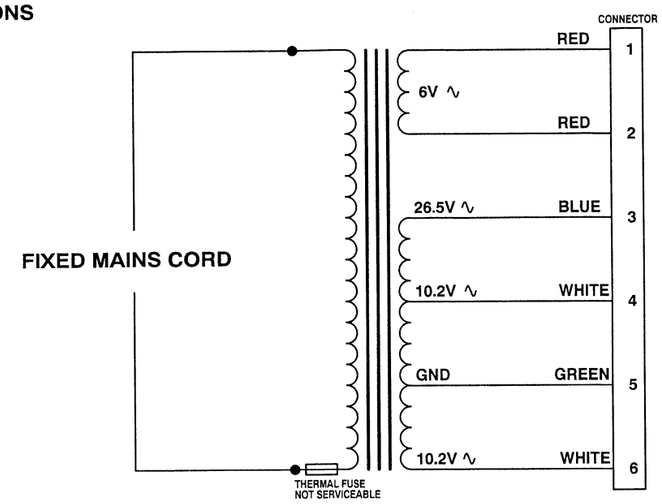


SWITCH PANEL



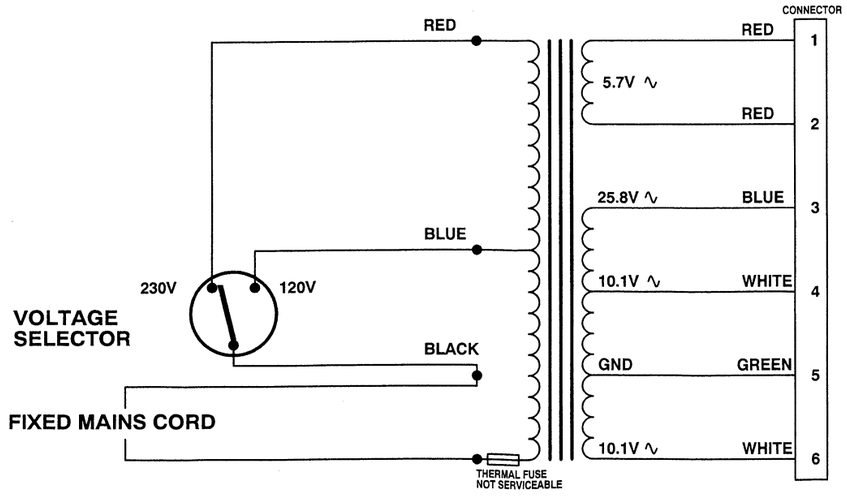
TRANSFORMER CONNECTIONS

/00/05/06/17 VERSIONS



VERSION	MAINS VOLTAGE	SERVICE CODE
/00	220V-230V	4822 146 31337
/05	240V	4822 146 31339
/06	100V	4822 146 31345
/17	117V	4822 146 31341

/01 VERSION



POSITION	MAINS VOLTAGE	SERVICE CODE
120V	110V-127V	4822 146 31338
230V	220V-240V	

TRANSFORMER AND VOLTAGE SELECTOR ARE ONE ASSEMBLY

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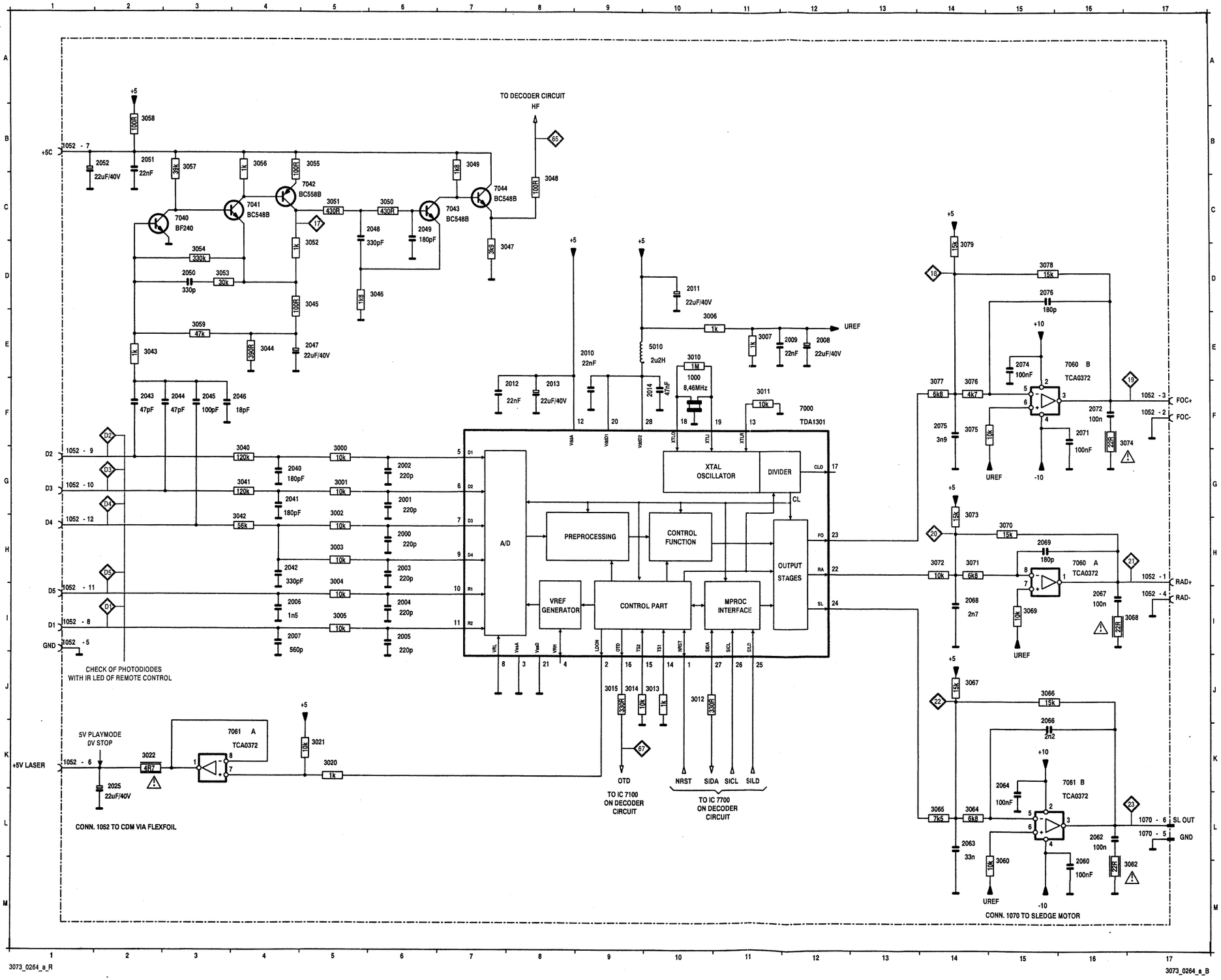
SERVO CIRCUIT DIAGRAM



eyepattern

17 / 65: 2.5V, 0,5us/DIV

STOP MODE

18 / 20: 80mV, 0,5us/DIV

ACTIVITY IN PLAY MODE

19: ACTIVITY DURING PLAY

21: ACTIVITY DURING PLAY

STOP MODE

22: 20mV, 0,5us/DIV

ACTIVITY IN PLAY MODE

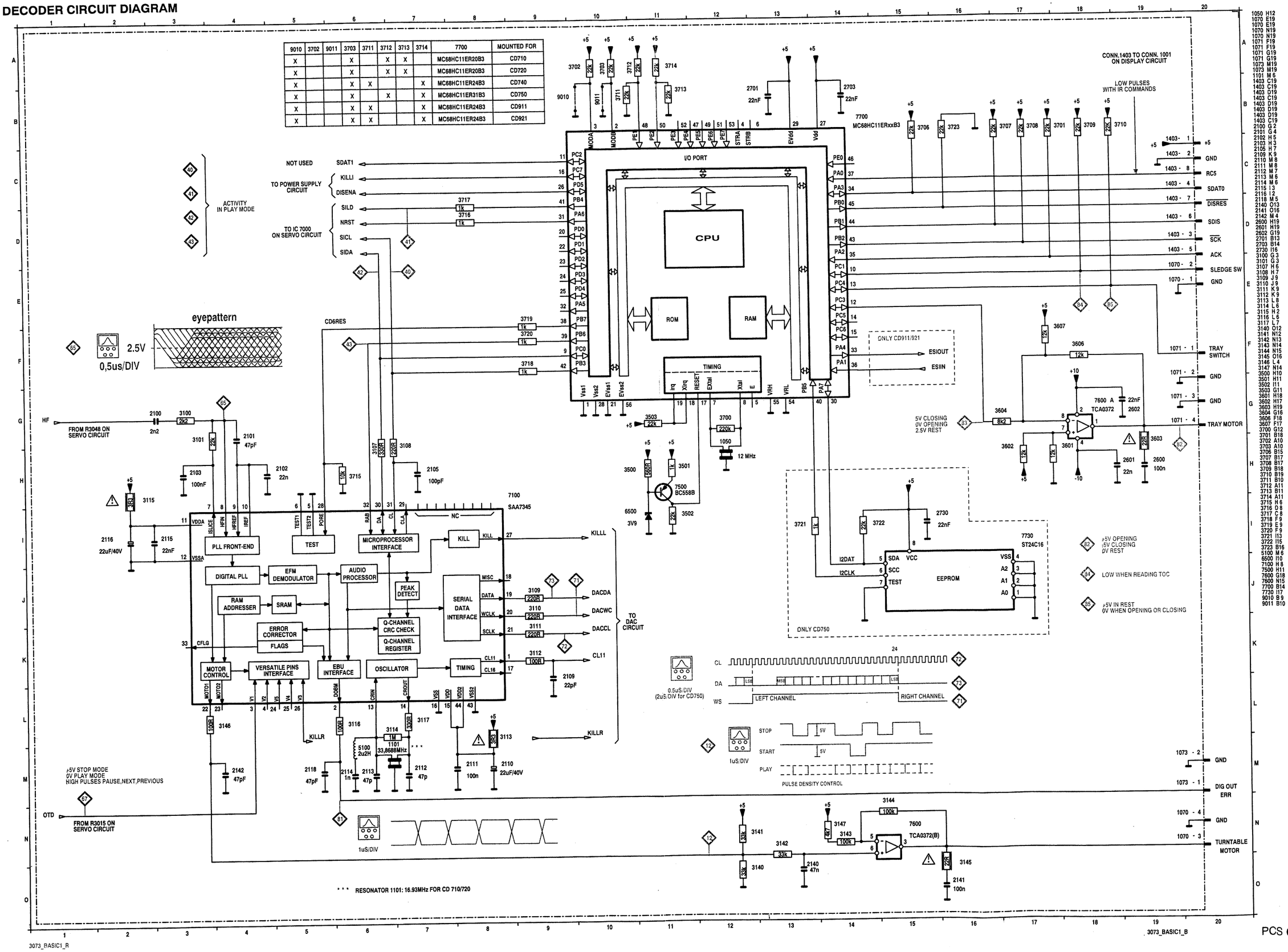
23: SERVICE MODE 0
SL OUT: -3.5V
SL IN: +3.5V

67: +5V STOP MODE
0V PLAY MODE
HIGH PULSES PAUSE,NEXT,PREVIOUS

27

DECODER CIRCUIT DIAGRAM

9010	3702	9011	3703	3711	3712	3713	3714	7700	MOUNTED FOR
X			X		X	X		MC68HC11ER20B3	CD710
X			X		X	X		MC68HC11ER20B3	CD720
X			X	X			X	MC68HC11ER24B3	CD740
X			X		X		X	MC68HC11ER31B3	CD750
X			X	X			X	MC68HC11ER24B3	CD911
X			X	X			X	MC68HC11ER24B3	CD921



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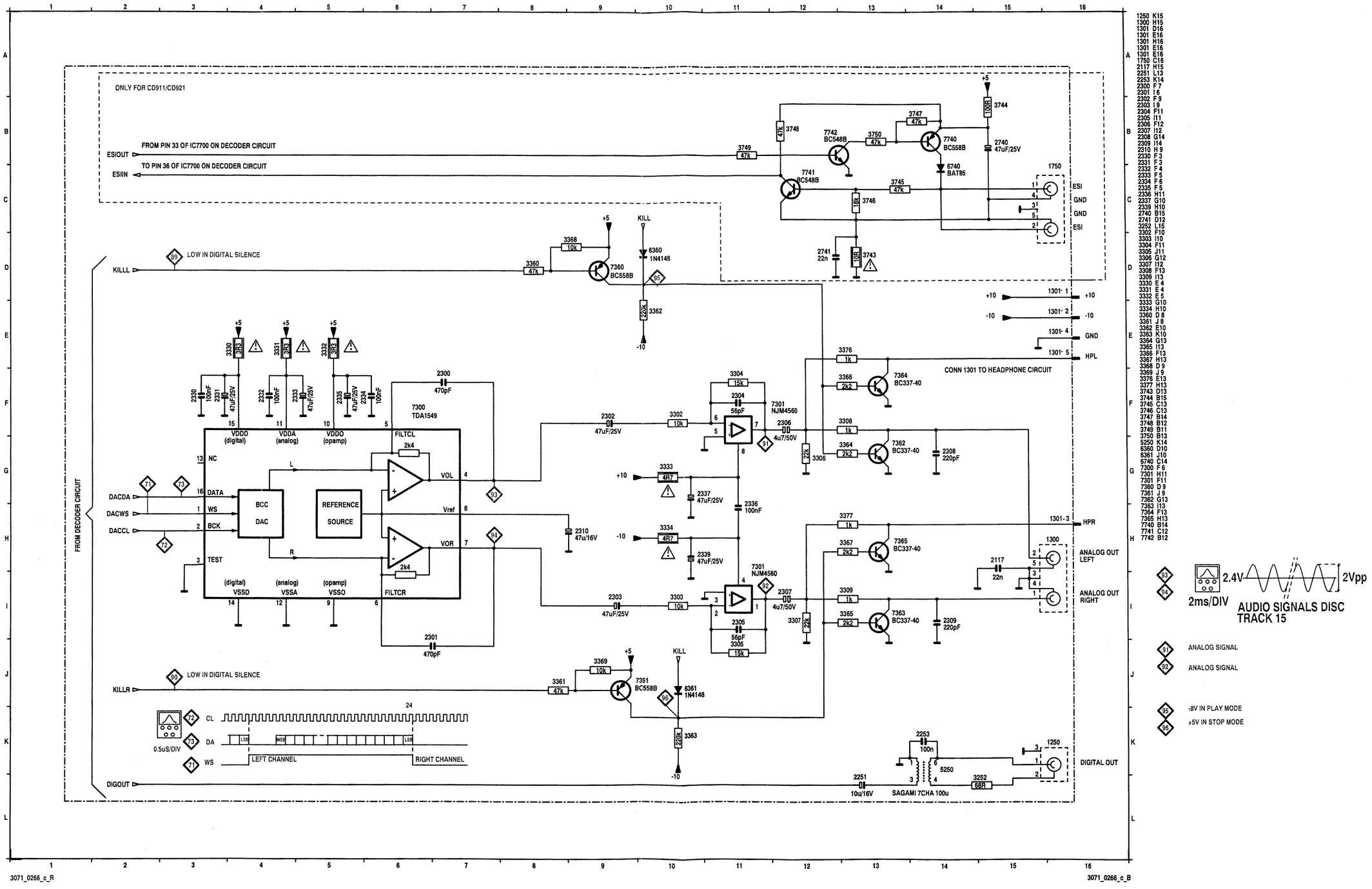
DAC CIRCUIT DIAGRAM



1250 K15
1300 H15
1301 D16
1301 E16
1301 H16
1301 E16
1301 E16
1750 C16
2117 H15
2251 L13
2253 K14
2300 F 7
2301 I 6
2302 F 9
2303 I 9
2304 F11
2305 I11
2306 F12
2307 I12
2308 G14
2309 I14
2310 H 9
2330 F 3
2331 F 3
2332 F 4
2333 F 5
2334 F 6
2335 F 5
2336 H11
2337 G10
2339 H10
2740 B15
2741 D12
3252 L15
3302 F10
3303 I10
3304 F11
3305 J11
3306 G12
3307 I12
3308 F13
3309 I13
3330 E 4
3331 E 4
3332 E 5
3333 G10
3334 H10
3360 D 8
3361 J 8
3362 E10
3363 K10
3364 G13
3365 I13
3366 F13
3367 H13
3368 D 9
3369 J 9
3376 E13
3377 H13
3743 D13
3744 B15
3745 C13
3746 C13
3747 B14
3748 B12
3749 B11
3750 B13
5250 K14
6360 D10
6361 J10
6740 C14
7300 F 6
7301 H11
7301 F11
7360 D 9
7361 J 9
7362 G13
7363 I13
7364 F13
7365 H13
7740 B14
7741 C12
7742 B12

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MAIN PANEL COMPONENT SIDE

1076 D 5	2308 B 7	2538 C 7	3330 B 5	3541 D 5	6361 C 6	7362 B 7	9106 C 6	9124 B 5	2004 C 1	2046 A 1	2075 C 1	2142 A 4	3013 C 1	3052 A 1	3072 C 1	3115 B 3	3604 C 4	3717 D 2	7100 A 4	9013 A 4	9031 C 5	9056 C 1
1250 C 7	2309 B 7	2540 D 6	3331 A 6	3542 D 5	6535 C 6	7363 B 7	9107 C 6	9125 B 5	2005 B 1	2047 A 1	2076 C 3	2600 C 4	3014 C 1	3053 A 1	3073 D 1	3116 B 5	3606 C 4	3718 D 2	7500 C 3	9014 C 3	9032 C 4	9057 A 4
1300 B 7	2310 A 6	2541 D 6	3332 A 6	3543 C 5	6536 D 7	7364 B 6	9108 A 5	9126 B 5	2006 B 2	2048 A 2	2100 A 2	2601 C 5	3015 C 1	3054 A 1	3074 B 1	3117 A 3	3607 C 4	3719 C 4	7600 C 4	9015 B 5	9033 D 4	9058 D 4
1301 B 7	2330 A 5	2542 D 5	3333 B 5	3544 D 5	6537 D 7	7365 B 7	9109 C 5	9127 C 7	2007 B 1	2049 A 2	2101 B 3	2602 C 5	3020 D 1	3055 A 2	3075 C 3	3140 A 4	3700 C 4	3720 B 4	7700 D 3	9016 A 2	9034 D 3	9059 C 2
1506 D 6	2331 A 5	2543 D 6	3334 C 6	3545 D 5	6538 C 6	7535 D 7	9110 A 5	9128 B 7	2008 C 2	2050 A 1	2102 B 3	2701 D 3	3021 D 2	3056 A 1	3076 C 3	3141 A 5	3701 D 4	3721 D 3	7730 D 2	9017 C 4	9035 D 3	9060 A 3
1508 D 7	2332 A 6	2560 C 6	3360 C 5	3560 D 6	6540 D 5	7540 D 5	9111 A 5	----	2009 C 2	2051 B 2	2103 B 3	2703 D 2	3022 D 2	3057 A 1	3077 C 1	3142 A 4	3702 C 4	3722 D 2	9000 A 2	9018 C 3	9036 B 4	9061 A 4
1750 A 7	2333 A 6	2740 A 7	3361 A 5	3562 D 6	6541 D 5	7541 D 5	9112 A 5	1000 C 2	2010 C 1	2052 A 2	2105 A 4	2730 D 2	3040 B 1	3058 B 2	3078 C 3	3143 B 5	3703 C 4	3723 D 3	9001 D 1	9019 B 4	9037 D 2	9062 D 2
2117 C 7	2334 A 6	2741 A 7	3362 C 6	3563 C 5	6542 D 6	7542 D 5	9113 D 5	1050 C 4	2011 C 2	2060 D 2	2109 B 3	3000 B 1	3041 B 1	3059 A 1	3079 C 1	3144 C 4	3706 D 4	5010 C 1	9002 C 2	9020 B 4	9039 D 4	9063 D 2
2251 C 7	2335 A 6	2742 A 6	3363 C 6	3743 B 7	6543 D 6	7543 D 5	9114 C 5	1052 B 2	2012 C 1	2062 D 1	2110 A 3	3001 B 1	3042 B 2	3060 C 2	3100 A 2	3145 C 4	3707 D 3	5100 A 3	9003 A 4	9021 C 4	9040 C 4	9064 C 2
2253 C 7	2336 C 6	3252 C 7	3364 B 7	3744 A 7	6544 D 6	7560 D 6	9115 C 5	1070 D 2	2013 C 1	2063 D 1	2111 A 3	3002 B 1	3043 A 1	3062 D 1	3101 B 3	3146 A 4	3708 D 3	6500 D 2	9004 B 2	9022 B 4	9041 C 2	9065 C 2
2300 A 5	2337 B 5	3302 B 6	3365 C 7	3745 A 7	6560 D 6	7740 A 7	9116 A 6	1071 D 4	2014 C 1	2064 D 2	2112 A 3	3003 B 1	3044 A 1	3064 D 1	3107 A 4	3147 B 5	3709 C 4	7000 C 1	9005 B 2	9023 B 4	9042 D 2	9066 C 2
2301 A 5	2339 C 6	3303 B 5	3366 B 6	3746 A 7	6561 D 6	7741 A 7	9117 B 5	1073 B 5	2025 B 2	2066 D 1	2113 A 3	3004 B 2	3045 A 1	3065 C 1	3108 A 4	3500 C 3	3710 D 4	7040 A 1	9006 D 2	9024 B 4	9043 C 5	9067 D 2
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2303 A 6	2532 C 6	3305 C 6	3368 C 5	3748 A 7	6740 A 7	9101 D 7	9119 C 5	1403 D 3	2041 B 2	2068 C 1	2115 A 3	3006 C 2	3047 A 2	3067 D 1	3110 A 4	3502 C 3	3712 D 4	7042 A 2	9008 A 4	9026 B 4	9045 D 1	9134 D 2
2304 B 6	2533 D 7	3306 B 6	3369 B 5	3749 A 7	7300 A 5	9102 B 5	9120 C 5	2000 B 1	2042 B 2	2069 C 3	2116 B 3	3007 C 2	3048 A 2	3068 B 1	3111 A 4	3503 C 3	3713 D 5	7043 A 2	9009 D 4	9027 B 4	9046 C 4	9135 D 2
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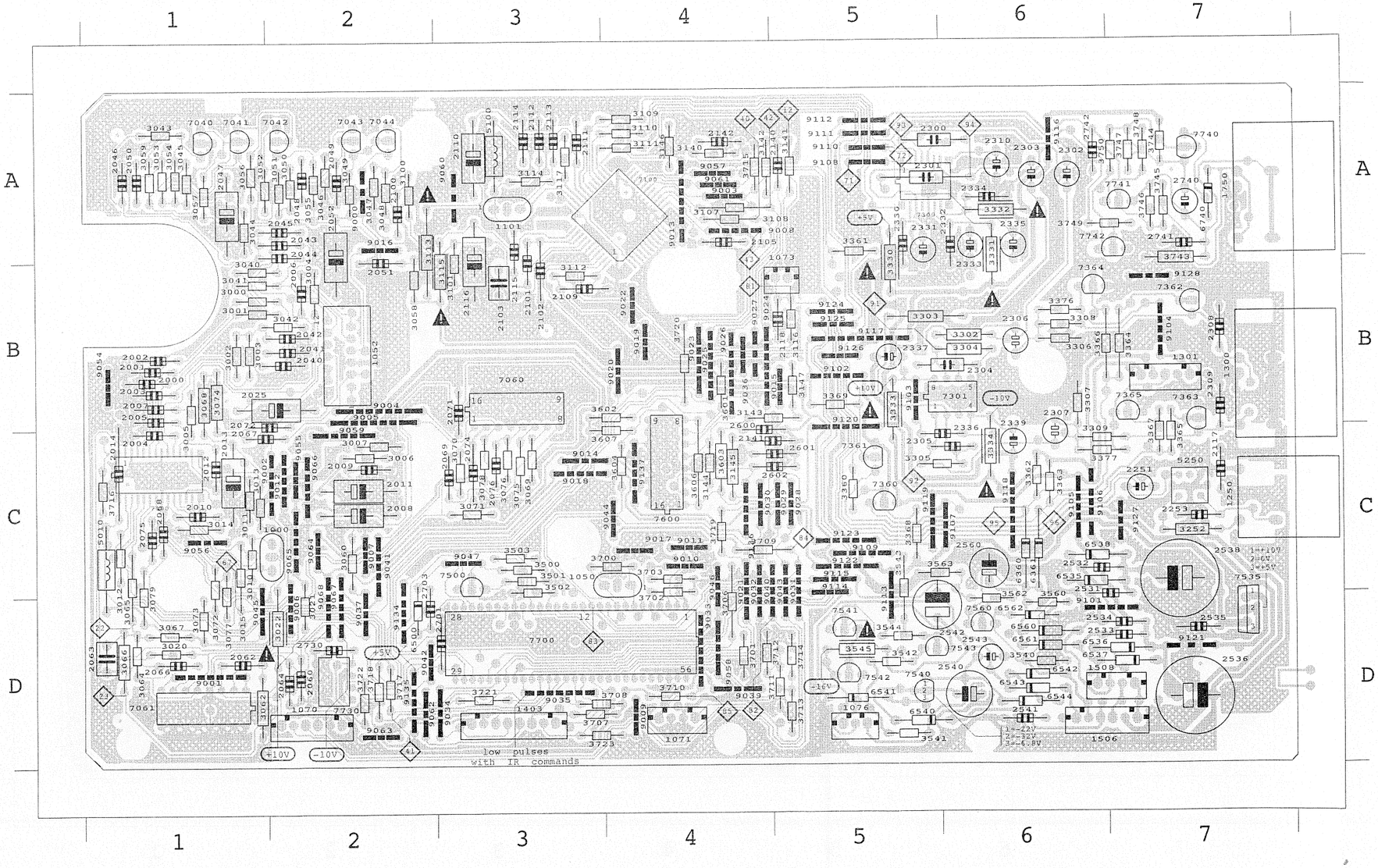
2306 B 6	2535 D 7	3308 B 6	3377 C 6	5250 C 7	7360 C 5	9104 B 7	9122 C 5	2002 B 1	2044 A 2	2072 B 2	2140 A 5	3011 C 1	3050 A 2	3070 C 3	3113 A 2	3602 B 4	3715 A 4	7060 B 3	9011 C 4	9029 C 5	9054 B 1	9137 C 4
2307 C 6	2536 D 7	3309 C 6	3540 D 6	6360 C 6	7361 C 5	9105 C 6	9123 C 5	2003 B 1	2045 A 2	2074 C 3	2141 C 5	3012 C 1	3051 A 2	3071 C 3	3114 A 3	3603 C 4	3716 C 1	7061 D 1	9012 C 2	9030 C 4	9055 C 2	



MAIN PANEL SOLDER SIDE

30

30

9056 C 1	9031 C 5	9013 A 4	7100 A 4	3717 D 2	3604 C 4	3115 B 3	3072 C 1	3052 A 1	3013 C 1	2142 A 4	2075 C 1	2046 A 1	2004 C 1	9124 B 5	9106 C 6	7362 B 7	6361 C 6	3541 D 5	3330 B 5	2538 C 7	2308 B 7	1076 D 5
9057 A 4	9032 C 4	9014 C 3	7500 C 3	3718 D 2	3606 C 4	3116 B 5	3073 D 1	3053 A 1	3014 C 1	2600 C 4	2076 C 3	2047 A 1	2005 B 1	9125 B 5	9107 C 6	7363 B 7	6535 C 6	3542 D 5	3331 A 6	2540 D 6	2309 B 7	1250 C 7
9058 D 4	9033 D 4	9015 B 5	7600 C 4	3719 C 4	3607 C 4	3117 A 3	3074 B 1	3054 A 1	3015 C 1	2601 C 5	2100 A 2	2048 A 2	2006 B 2	9126 B 5	9108 A 5	7364 B 6	6536 D 7	3543 C 5	3332 A 6	2541 D 6	2210 A 6	1300 B 7
9059 C 2	9034 D 3	9016 A 2	7700 D 3	3720 B 4	3700 C 4	3140 A 4	3075 C 3	3055 A 2	3020 D 1	2602 C 5	2101 B 3	2049 A 2	2007 B 1	9127 C 7	9109 C 5	7365 B 7	6537 D 7	3544 D 5	3333 B 5	2542 D 5	2330 A 5	1301 B 7
9060 A 3	9035 D 3	9017 C 4	7730 D 2	3721 D 3	3701 D 4	3141 A 5	3076 C 3	3056 A 1	3021 D 2	2701 D 3	2102 B 3	2050 A 1	2008 C 2	9128 B 7	9110 A 5	7535 D 7	6538 C 6	3545 D 5	3334 C 6	2543 D 6	2331 A 5	1506 D 6
9061 A 4	9036 B 4	9018 C 3	9000 A 2	3722 D 2	3702 C 4	3142 A 4	3077 C 1	3057 A 1	3022 D 2	2703 D 2	2103 B 3	2051 B 2	2009 C 2	----	9111 A 5	7540 D 5	6540 D 5	3560 D 6	3360 C 5	2560 C 6	2332 A 6	1508 D 7
9062 D 2	9037 D 2	9019 B 4	9001 D 1	3723 D 3	3703 C 4	3143 B 5	3078 C 3	3058 B 2	3040 B 1	2730 D 2	2105 A 4	2052 A 2	2010 C 1	1000 C 2	9112 A 5	7541 D 5	6541 D 5	3562 D 6	3361 A 5	2740 A 7	2333 A 6	1750 A 7
9063 D 2	9039 D 4	9020 B 4	9002 C 2	5010 C 1	3706 D 4	3144 C 4	3079 C 1	3059 A 1	3041 B 1	3000 B 1	2109 B 3	2060 D 2	2011 C 2	1050 C 4	9113 D 5	7542 D 5	6542 D 6	3563 C 5	3362 C 6	2741 A 7	2334 A 6	2117 C 7
9064 C 2	9040 C 4	9021 C 4	9003 A 4	5100 A 3	3707 D 3	3145 C 4	3100 A 2	3060 C 2	3042 B 2	3001 B 1	2110 A 3	2062 D 1	2012 C 1	1052 B 2	9114 C 5	7543 D 5	6543 D 6	3743 B 7	3363 C 6	2742 A 6	2335 A 6	2251 C 7
9065 C 2	9041 C 2	9022 B 4	9004 B 2	6500 D 2	3708 D 3	3146 A 4	3101 B 3	3062 D 1	3043 A 1	3002 B 1	2111 A 3	2063 D 1	2013 C 1	1070 D 2	9115 C 5	7560 D 6	6544 D 6	3744 A 7	3364 B 7	3252 C 7	2336 C 6	2253 C 7
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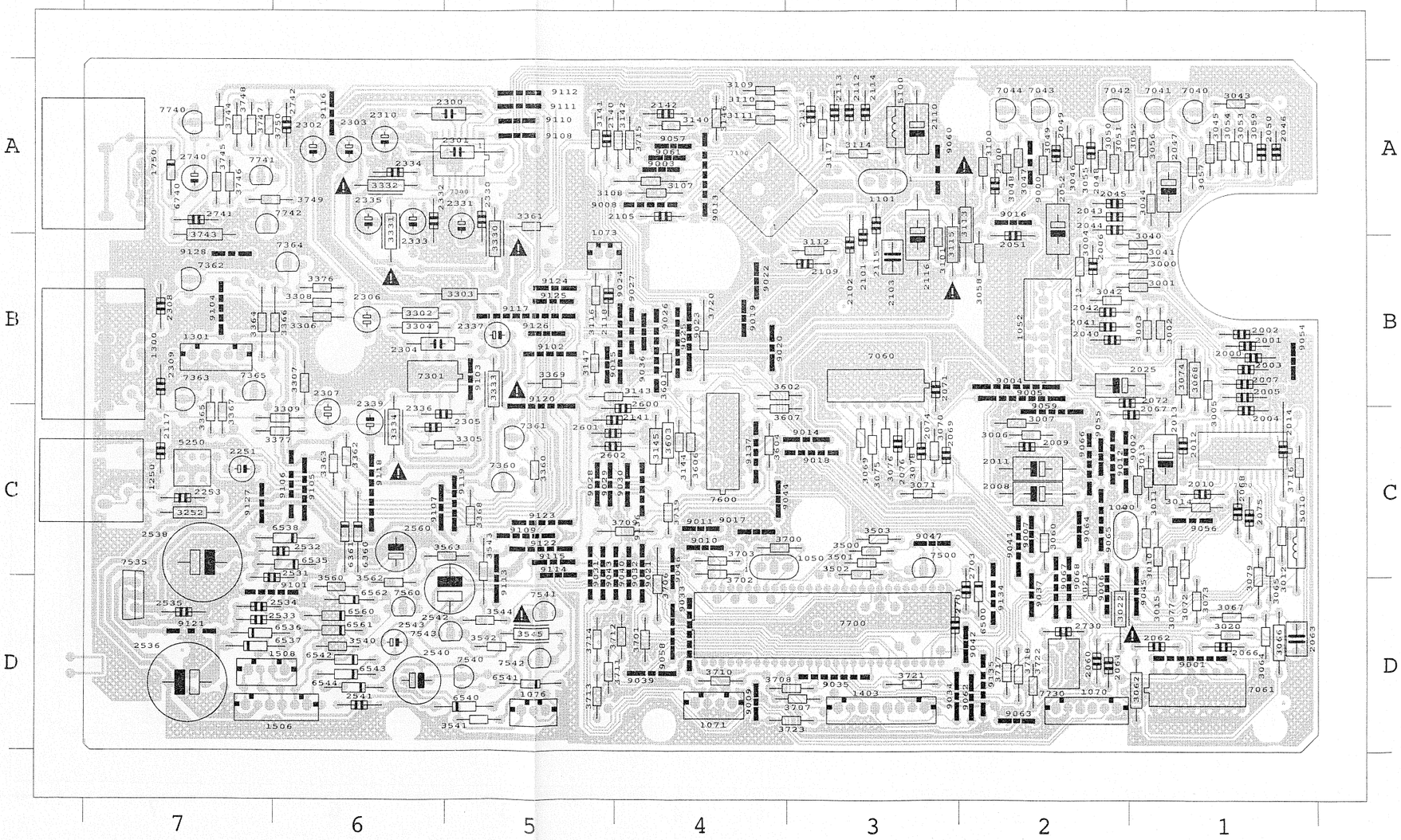
9134 D 2	9045 D 1	9026 B 4	9008 A 4	7042 A 2	3712 D 4	3502 C 3	3110 A 4	3067 D 1	3047 A 2	3006 C 2	2115 A 3	2068 C 1	2041 B 2	1403 D 3	9119 C 5	9101 D 7	6740 A 7	3748 A 7	3368 C 5	3305 C 6	2532 C 6	2303 A 6
9135 D 2	9046 C 4	9027 B 4	9009 D 4	7043 A 2	3713 D 5	3503 C 3	3111 A 4	3068 B 1	3048 A 2	3007 C 2	2116 B 3	2069 C 3	2042 B 2	2000 B 1	9120 C 5	9102 B 5	7300 A 5	3749 A 7	3369 B 5	3306 B 6	2533 D 7	2304 B 6
9136 C 4	9047 C 3	9028 C 5	9010 C 4	7044 A 2	3714 D 5	3601 B 4	3112 B 3	3069 C 3	3049 A 2	3010 C 1	2118 B 5	2071 B 3	2043 A 2	2001 B 1	9121 D 7	9103 B 5	7301 B 6	3750 A 7	3376 B 6	3307 B 6	2534 D 7	2305 C 6
9137 C 4	9054 B 1	9029 C 5	9011 C 4	7060 B 3	3715 A 4	3602 B 4	3113 A 2	3070 C 3	3050 A 2	3011 C 1	2140 A 5	2072 B 2	2044 A 2	2002 B 1	9122 C 5	9104 B 7	7360 C 5	5250 C 7	3377 C 6	3308 B 6	2535 D 7	2306 B 6
	9055 C 2	9030 C 4	9012 C 2	7061 D 1	3716 C 1	3603 C 4	3114 A 3	3071 C 3	3051 A 2	3012 C 1	2141 C 5	2074 C 3	2045 A 2	2003 B 1	9123 C 5	9105 C 6	7361 C 5	6360 C 6	3540 D 6	3309 C 6	2536 D 7	2307 C 6



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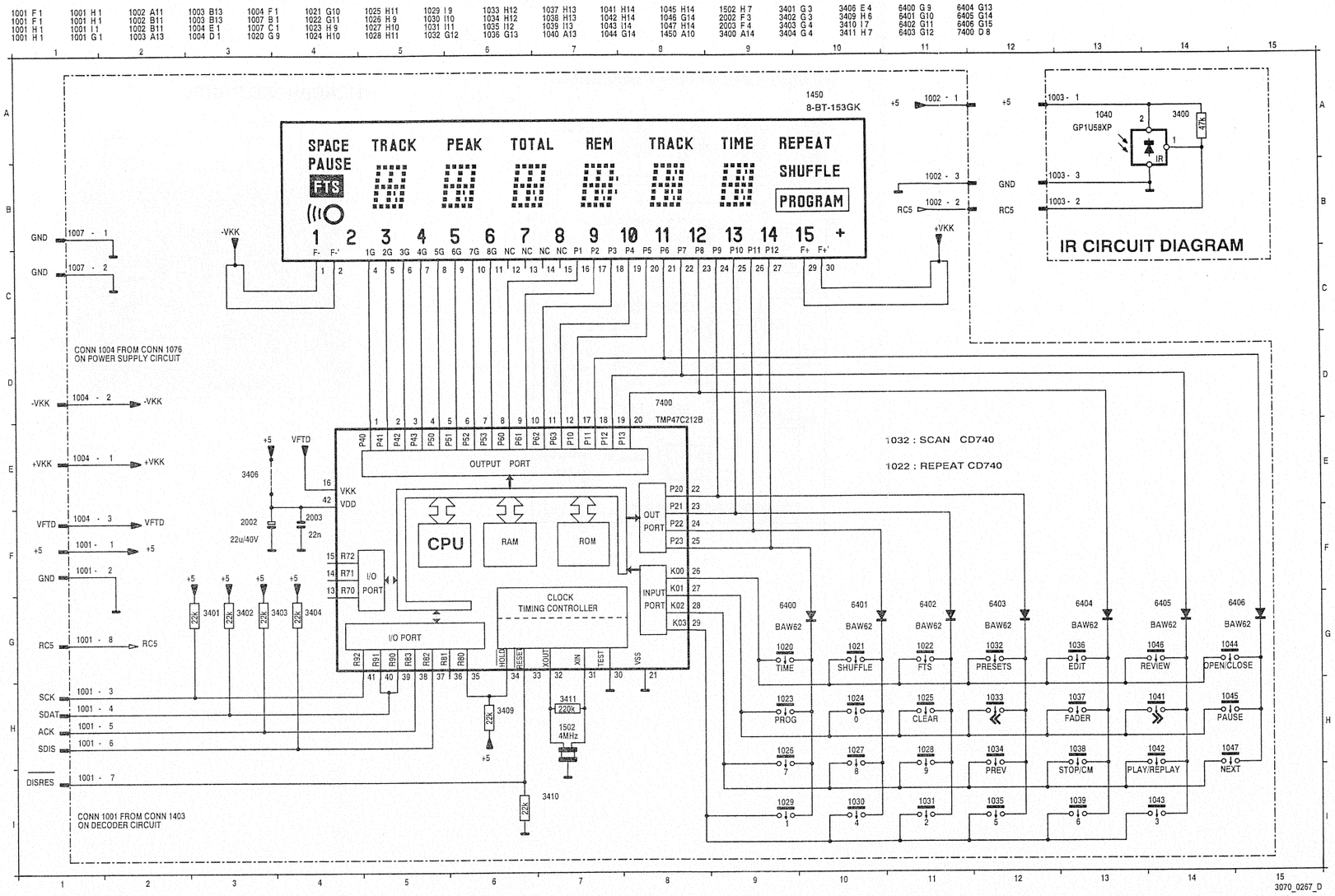
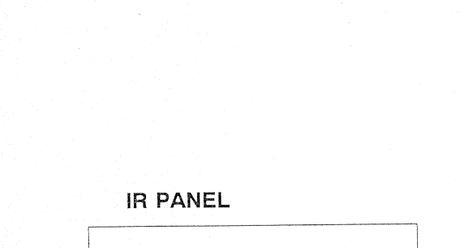
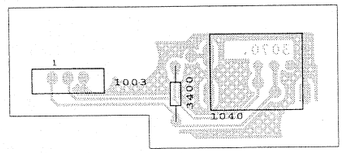
CONTROL & DISPLAY CIRCUIT DIAGRAM

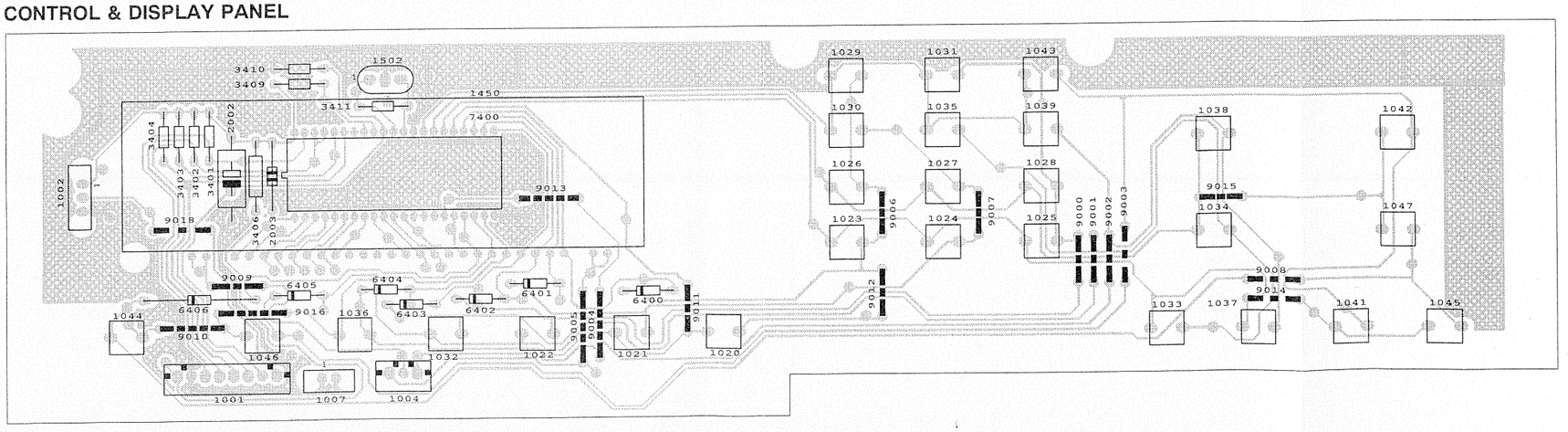




IR PANEL



CONTROL & DISPLAY PANEL



HEADPHONE CIRCUIT DIAGRAM

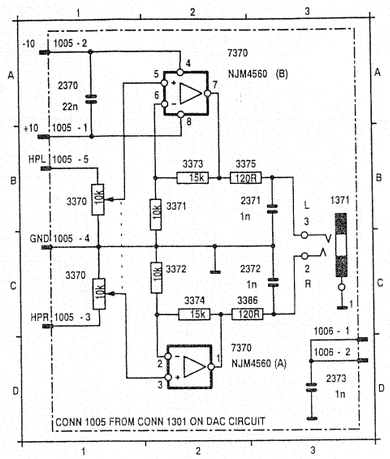
1005 B 1
1005 A 1
1005 C 1
1005 C 1
1005 B 1

1006 C 3
1006 D 3
1371 B 3
2370 A 1
2371 B 3

2372 C 3
2373 D 3
3370 C 1
3370 B 1
3371 B 2

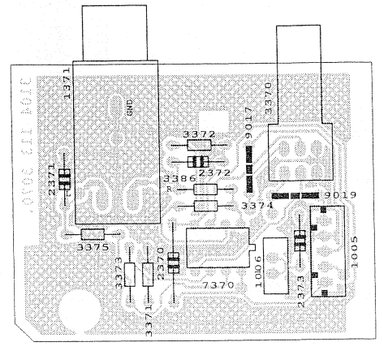
3372 C 2
3373 B 2
3374 C 2
3375 B 2
3386 C 2

7370 D 2
7370 A 2



3070_0267_H

HEADPHONE PANEL



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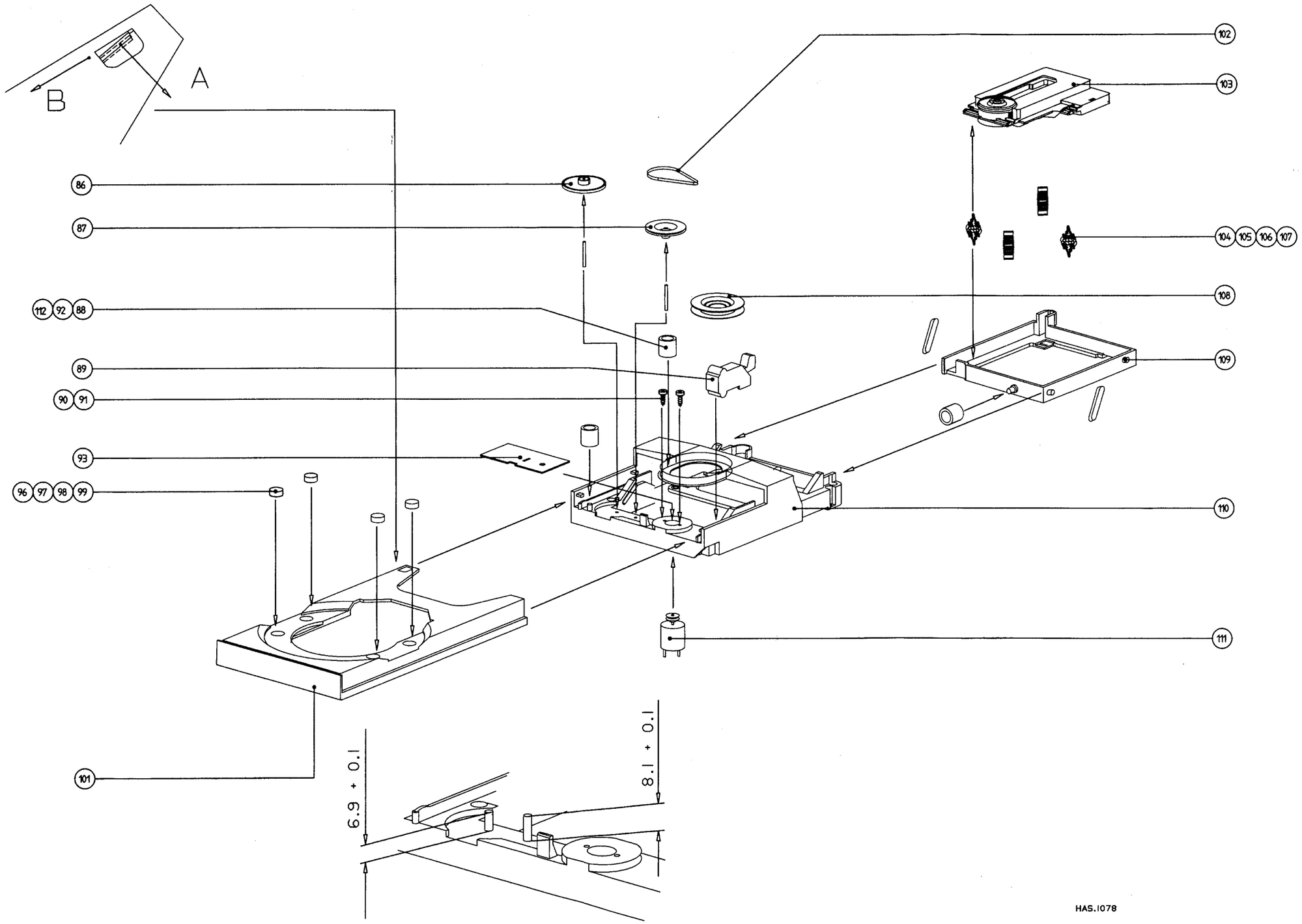
LOADER

DETAIL I



PARTS LIST LOADER

86	4822 528 81464	DRIVE PINION
87	4822 528 81465	PULLEY
88,92,112	4822 325 60379	DAMPING GROMMET
89	4822 276 13222	SWITCH
93	4822 444 60816	COVER PLATE
96,97,98,99	4822 325 80511	ORNAMENTAL TULE
101	4822 444 50679	SLIDE
102	4822 358 31168	BELT
103	4822 691 30278	CDM12 MECHANISM
104,105,106,107	4822 325 50215	SUSPENSION
108	4822 402 61412	CLAMPER ASSY
109	4822 464 50895	SUBCHASSIS
110	4822 464 50678	CHASSIS (CD710/CD720)
110	4822 464 50896	CHASSIS (CD740/CD750/CD911/CD921)
111	4822 361 21492	MOTOR

Screws

90,91	M 2.2 x 4

MECHANICAL PARTS LIST

1		4822 444 40718	FRONT CD750
1		4822 444 40719	FRONT CD740
15		4822 410 63094	BUTTON UNIT CD750
15		4822 410 63099	BUTTON UNIT CD740
16		4822 410 63095	BUTTON UNIT 10-KEY
17		4822 410 63096	BUTTON UNIT
21		4822 459 10887	WORDMARK
22		4822 450 61895	WINDOW
23		4822 450 61894	IR WINDOW
52		4822 535 93461	POWER ROD
53		4822 413 51468	VOLUME KNOB
54		4822 492 51374	SPRING
71		4822 444 40721	TRAY FRONT CD750
71		4822 444 40724	TRAY FRONT CD740
72		4822 454 12828	TEXT PLATE(CD750)
151		4822 444 60843	COVER
251		4822 462 41715	FOOT
252		4822 462 41715	FOOT
253		4822 462 41715	FOOT
254		4822 462 41715	FOOT
255		4822 462 41479	FELT
256		4822 462 41479	FELT
257		4822 462 41479	FELT
258		4822 462 41479	FELT
283	▲	4822 532 60948	BUSHING
308		4822 321 22832	CINCH CABLE SBC1072
340		4822 736 21986	IFU MULTILANGUAGE CD750
340		4822 736 21985	IFU MULTILANGUAGE CD740
340		4822 736 22001	IFU JA CD750
365		4822 218 10538	REM.CONTROL RD6843

Not mentioned parts are only available during production period on special request.

Screws

Taptite	M3x6:	6,7,8 83,84,85 171,172,173,174 175,176, 200,201 269,270 271,272
Taptite	M3x10:	291,292
Taptite	M3x16:	202 259,260,261,262
Taptite	M3x28:	204,205
Plastite	M3x10:	39,40,41 42 209,210,211
Plastite	M3x12:	30,31,32,33,34,35,36,37,38

EXPLODED VIEW

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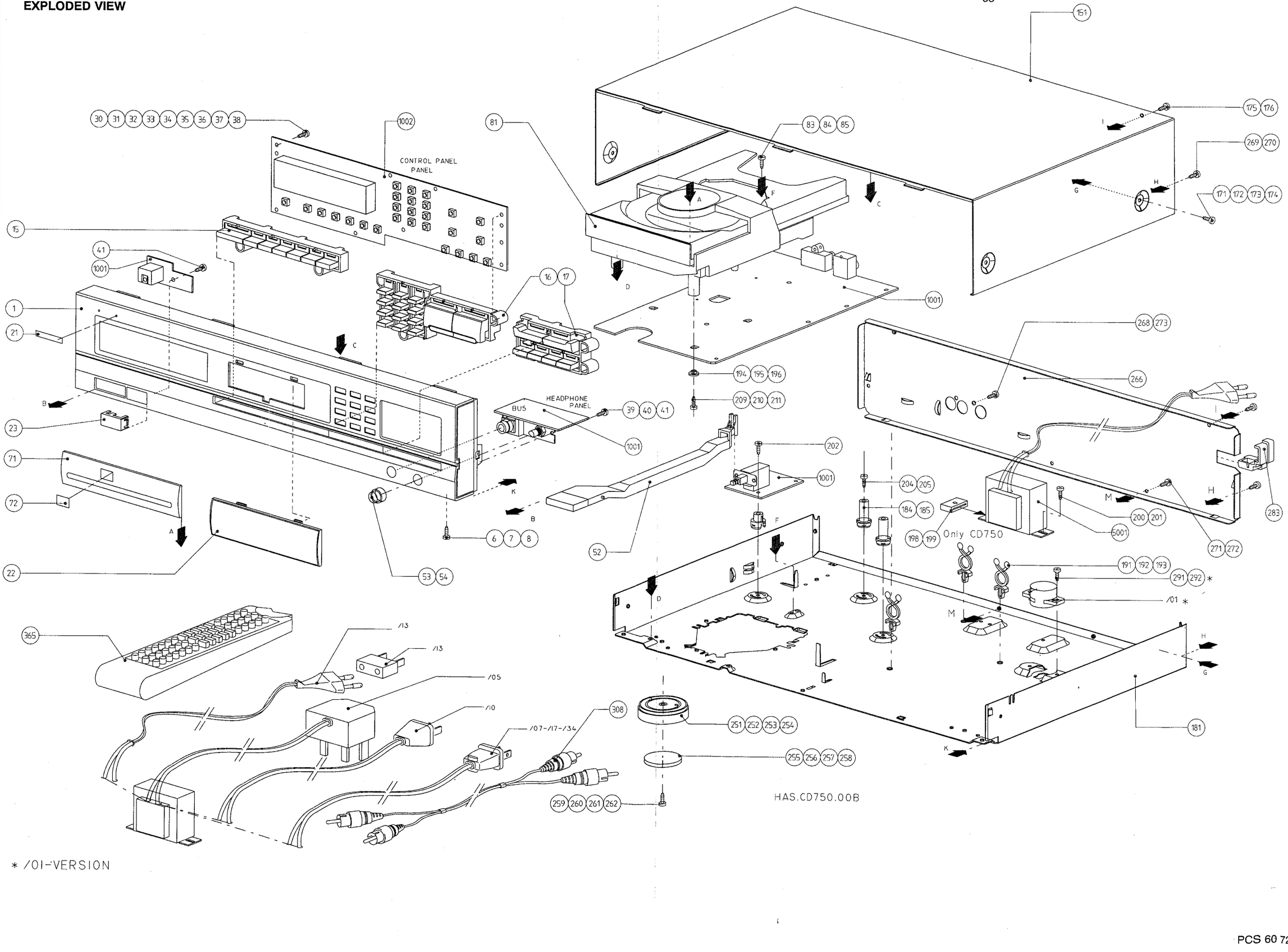

ELECTRICAL PARTS LIST

MAIN PANEL

MISCELLANEOUS

1000		4822 242 73557	RESONATOR 8.46MHz
1050		5322 242 73686	RESONATOR 12MHz
1101		4822 242 81705	RESONATOR 33.8MHz
1250		4822 267 31729	DIGITAL OUT SOCKET
1300		4822 267 31731	ANALOG OUT SOCKET
1510	⚠	4822 071 51002	FUSE RAD T 1A
1511	⚠	4822 071 51002	FUSE RAD T 1A
1530	⚠	4822 276 13489	MAINS SWITCH

CAPACITORS

2000	4822 122 10466	220pF 10% 50V
2001	4822 122 10466	220pF 10% 50V
2002	4822 122 10466	220pF 10% 50V
2003	4822 122 10466	220pF 10% 50V
2004	4822 122 10466	220pF 10% 50V
2005	4822 122 10466	220pF 10% 50V
2006	4822 126 12878	1,5nF 10% 16V
2007	4822 122 10459	560pF 10% 50V
2008	5322 124 21643	22µF 20% 40V
2009	4822 126 11585	22nF +80-20% 25V
2010	4822 126 11585	22nF +80-20% 25V
2011	5322 124 21643	22µF 20% 40V
2012	4822 126 11585	22nF +80-20% 25V
2013	5322 124 21643	22µF 20% 40V
2014	4822 126 12785	47nF TUB 50V
2025	5322 124 21643	22µF 20% 40V
2040	4822 126 10053	180pF 10%Y5P
2041	4822 126 10053	180pF 10%Y5P
2042	4822 126 12787	330pF 10% 50V
2043	4822 122 33848	47pF 5%SL 50V
2044	4822 122 33848	47pF 5%SL 50V
2045	4822 122 33195	100pF 10% 50V
2046	4822 126 12573	18pF 5% 50V
2047	5322 124 21643	22µF 20% 40V
2048	4822 126 12787	330pF 10% 50V
2049	4822 126 10053	180pF 10%Y5P
2050	4822 122 10466	220pF 10% 50V
2051	4822 126 11585	22nF +80-20% 25V
2052	5322 124 21643	22µF 20% 40V
2060	4822 126 12882	100nF +80-20% 50V
2062	4822 126 12882	100nF +80-20% 50V
2063	5322 121 42489	33nF 5% 250V
2064	4822 126 12882	100nF +80-20% 50V
2066	4822 126 12339	2,2nF 10% Y5Ω
2067	4822 126 12882	100nF +80-20% 50V
2068	4822 126 12148	2,7nF 10%
2069	4822 126 10053	180pF 10%Y5P
2071	4822 126 12882	100nF +80-20% 50V
2072	4822 126 12882	100nF +80-20% 50V
2074	4822 126 12882	100nF +80-20% 50V
2075	4822 126 13151	3,9nF 10%Y5Ω16V
2076	4822 126 10053	180pF 10%Y5P
2100	4822 126 12339	2,2nF 10% Y5Ω
2101	4822 122 33848	47pF 5%SL 50V
2102	4822 126 11585	22nF +80-20% 25V
2103	5322 121 42386	100nF 5% 63V
2105	4822 122 33195	100pF 10% 50V
2109	4822 122 33191	22pF 5% 50V
2110	5322 124 21643	22µF 20% 40V
2111	4822 126 12882	100nF +80-20% 50V
2112	4822 122 33848	47pF 5%SL 50V
2113	4822 122 33848	47pF 5%SL 50V
2114	4822 122 33197	1nF 10% 50V
2115	4822 126 11585	22nF +80-20% 25V
2117	4822 126 11585	22nF +80-20% 25V
2116	5322 124 21643	22µF 20% 40V
2118	4822 122 33848	47pF 5%SL 50V
2140	4822 126 12785	47nF TUB 50V
2141	4822 126 12882	100nF +80-20% 50V
2142	4822 122 33848	47pF 5%SL 50V
2251	4822 124 40248	10µF 20% 63V
2253	4822 126 12882	100nF +80-20% 50V
2300	4822 122 33519	470pF 10% 50V
2301	4822 122 33519	470pF 10% 50V
2302	4822 124 40433	47µF 20% 25V
2303	4822 124 40433	47µF 20% 25V
2304	4822 122 10573	56pF 5% 50V
2305	4822 122 10573	56pF 5% 50V
2306	4822 124 80408	4,7µF 20% 50V
2307	4822 124 80408	4,7µF 20% 50V
2308	4822 122 10466	220pF 10% 50V
2309	4822 122 10466	220pF 10% 50V
2310	4822 124 40433	47µF 20% 25V
2330	4822 126 12882	100nF +80-20% 50V
2331	4822 124 40433	47µF 20% 25V
2332	4822 126 12882	100nF +80-20% 50V
2333	4822 124 40433	47µF 20% 25V
2334	4822 126 12882	100nF +80-20% 50V
2335	4822 124 40433	47µF 20% 25V
2336	4822 126 12882	100nF +80-20% 50V
2337	4822 124 40433	47µF 20% 25V
2339	4822 124 40433	47µF 20% 25V
2531	4822 126 11585	22nF +80-20% 25V
2532	4822 126 11585	22nF +80-20% 25V
2533	4822 126 11585	22nF +80-20% 25V
2534	4822 126 11585	22nF +80-20% 25V
2535	4822 126 12882	100nF +80-20% 50V
2536	4822 124 41458	4700µF 20% 16V
2538	4822 124 80294	3300µF 20% 16V
2540	5322 124 22094	220µF 20% 50V

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2541	4822 126 12882	100nF +80-20% 50V
2542	4822 124 40184	1000µF 20% 10V
2560	4822 124 40849	330µF 20% 16V
2600	4822 126 12882	100nF +80-20% 50V
2601	4822 126 11585	22nF +80-20% 25V
2602	4822 126 11585	22nF +80-20% 25V
2701	4822 126 11585	22nF +80-20% 25V
2703	4822 126 11585	22nF +80-20% 25V

RESISTORS

3000		4822 116 52233	10k 5% 0,5W
3001		4822 116 52233	10k 5% 0,5W
3002		4822 116 52233	10k 5% 0,5W
3003		4822 116 52233	10k 5% 0,5W
3004		4822 116 52233	10k 5% 0,5W
3005		4822 116 52233	10k 5% 0,5W
3006		4822 050 11002	1k 1% 0,4W
3007		4822 050 11002	1k 1% 0,4W
3010		4822 116 52235	1M 5% 0,5W
3011		4822 116 52233	10k 5% 0,5W
3012		4822 116 52219	330Ω 5% 0,5W
3013		4822 050 11002	1k 1% 0,4W
3014		4822 116 52233	10k 5% 0,5W
3015		4822 116 52219	330Ω 5% 0,5W
3020		4822 050 11002	1k 1% 0,4W
3021		4822 116 52233	10k 5% 0,5W
3022	⚠	4822 052 10478	4Ω7 5% 0,33W
3040		4822 116 52239	120k 5% 0,5W
3041		4822 116 52239	120k 5% 0,5W
3042		4822 116 52291	56k 5% 0,5W
3043		4822 050 11002	1k 1% 0,4W
3044		4822 116 52222	390Ω 5% 0,5W
3045		4822 116 52175	100Ω 5% 0,5W
3046		4822 116 52249	1k8 5% 0,5W
3047		4822 116 52276	3k9 5% 0,5W
3048		4822 116 52175	100Ω 5% 0,5W
3049		4822 116 52249	1k8 5% 0,5W
3050		4822 116 52223	430Ω 5% 0,5W
3051		4822 116 52223	430Ω 5% 0,5W
3052		4822 050 11002	1k 1% 0,4W
3053		4822 116 52267	30k 5% 0,5W
3054		4822 116 52272	330k 5% 0,5W
3055		4822 116 52175	100Ω 5% 0,5W
3056		4822 050 11002	1k 1% 0,4W
3057		4822 116 52277	39k 5% 0,5W
3058		4822 116 52175	100Ω 5% 0,5W
3059		4822 116 52284	47k 5% 0,5W
3060		4822 116 52233	10k 5% 0,5W
3062	⚠	4822 052 10229	22Ω 5% 0,33W
3064		4822 116 52296	6k8 5% 0,5W
3065		4822 050 27502	7k5 1% 0,6W
3066		4822 050 21503	15k 1% 0,6W
3067		4822 116 52244	15k 5% 0,5W
3068	⚠	4822 052 10229	22Ω 5% 0,33W
3069		4822 116 52233	10k 5% 0,5W
3070		4822 116 52244	15k 5% 0,5W
3071		4822 116 52296	6k8 5% 0,5W
3072		4822 116 52233	10k 5% 0,5W
3073		4822 116 52244	15k 5% 0,5W
3074	⚠	4822 052 10229	22Ω 5% 0,33W
3075		4822 116 52233	10k 5% 0,5W
3076		4822 116 52283	4k7 5% 0,5W
3077		4822 116 52296	6k8 5% 0,5W
3078		4822 116 52244	15k 5% 0,5W
3079		4822 116 52244	15k 5% 0,5W
3100		4822 116 52256	2k2 5% 0,5W
3101		4822 116 52257	22k 5% 0,5W
3107		4822 116 52219	330Ω 5% 0,5W
3108		4822 116 52215	220Ω 5% 0,5W
3109		4822 116 52215	220Ω 5% 0,5W
3110		4822 116 52215	220Ω 5% 0,5W
3111		4822 116 52215	220Ω 5% 0,5W
3112		4822 116 52175	100Ω 5% 0,5W
3113	⚠	4822 052 10338	3Ω3 5% 0,33W
3114		4822 116 52235	1M 5% 0,5W
3115	⚠	4822 052 10338	3Ω3 5% 0,33W
3116		4822 116 52175	100Ω 5% 0,5W
3117		4822 116 52219	330Ω 5% 0,5W
3140		4822 116 52271	33k 5% 0,5W
3141		4822 116 52271	33k 5% 0,5W
3142		4822 116 52271	33k 5% 0,5W
3143		4822 116 52234	100k 5% 0,5W
3144		4822 116 52234	100k 5% 0,5W
3145	⚠	4822 052 10229	22Ω 5% 0,33W
3146		4822 116 52175	100Ω 5% 0,5W
3147		4822 116 52283	4k7 5% 0,5W
3252		4822 116 52199	68Ω 5% 0,5W
3302		4822 116 52233	10k 5% 0,5W
3303		4822 116 52233	10k 5% 0,5W
3304		4822 116 52244	15k 5% 0,5W
3305		4822 116 52244	15k 5% 0,5W
3306		4822 116 52257	22k 5% 0,5W
3307		4822 116 52257	22k 5% 0,5W
3308		4822 050 11002	1k 1% 0,4W
3309		4822 050 11002	1k 1% 0,4W
3330	⚠	4822 052 10338	3Ω3 5% 0,33W
3331	⚠	4822 052 10338	3Ω3 5% 0,33W
3332	⚠	4822 052 10338	3Ω3 5% 0,33W
3333	⚠	4822 052 10478	4Ω7 5% 0,33W
3334	⚠	4822 052 10478	4Ω7 5% 0,33W
3360		4822 116 52284	47k 5% 0,5W
3361		4822 116 52284	47k 5% 0,5W
3362		4822 116 52258	220k 5% 0,5W
3363		4822 116 52258	220k 5% 0,5W
3364		4822 116 52256	2k2 5% 0,5W
3365		4822 116 52256	2k2 5% 0,5W

3366		4822 116 52256	2k2 5% 0,5W
3367		4822 116 52256	2k2 5% 0,5W
3368		4822 116 52233	10k 5% 0,5W
3369		4822 116 52233	10k 5% 0,5W
3376		4822 050 11002	1k 1% 0,4W
3377		4822 050 11002	1k 1% 0,4W
3500		4822 116 52226	560Ω 5% 0,5W
3501		4822 050 11002	1k 1% 0,4W
3502		4822 116 52257	22k 5% 0,5W
3503		4822 116 52257	22k 5% 0,5W
3540		4822 116 52284	47k 5% 0,5W
3541		4822 116 52207	1k2 5% 0,5W
3542		4822 116 52283	4k7 5% 0,5W
3543		4822 116 52283	4k7 5% 0,5W
3544		4822 116 52257	22k 5% 0,5W
3545	⚠	4822 052 10478	4Ω7 5% 0,33W
3560		4822 050 11002	1k 1% 0,4W
3562		4822 116 52283	4k7 5% 0,5W
3563		4822 116 52283	4k7 5% 0,5W
3601		4822 116 52238	12k 5% 0,5W
3602		4822 116 52238	12k 5% 0,5W
3603	⚠	4822 052 10229	22Ω 5% 0,33W
3604		4822 116 52303	8k2 5% 0,5W
3606		4822 116 52238	12k 5% 0,5W
3607		4822 116 52238	12k 5% 0,5W
3700		4822 116 52258	220k 5% 0,5W
3701		4822 116 52257	22k 5% 0,5W
3703		4822 116 52257	22k 5% 0,5W
3706		4822 116 52257	22k 5% 0,5W
3707		4822 116 52257	22k 5% 0,5W
3708		4822 116 52257	22k 5% 0,5W
3709		4822 116 52257	22k 5% 0,5W
3710		4822 116 52257	22k 5% 0,5W
3711		4822 116 52257	22k 5% 0,5W
3714		4822 116 52257	22k 5% 0,5W
3715		4822 116 52233	10k 5% 0,5W
3716		4822 050 11002	1k 1% 0,4W
3717		4822 050 11002	1k 1% 0,4W
3718		4822 050 11002	1k 1% 0,4W
3719		4822 050 11002	1k 1% 0,4W
3720		4822 050 11002	1k 1% 0,4W
3723		4822 116 52257	22k 5% 0,5W

COILS

5010	4822 157 62552	2,2µH
5100	4822 157 62552	2,2µH
5250	4822 157 70601	DIG. OUT TRANSFO

DIODES

6360	4822 130 30621	1N4148
6361	4822 130 30621	1N4148
6500	4822 130 31981	BZX79-C3V9
6535	5322 130 30684	1N4002GP
6536	5322 130 30684	1N4002GP
6537	5322 130 30684	1N4002GP
6538	5322 130 30684	1N4002GP
6540	4822 130 83362	1N4004GP
6541	4822 130 34278	BZX79-C6V8
6542	4822 130 30621	1N4148
6543	5322 130 30684	1N4002GP
6544	4822 130 30621	1N4148
6560	5322 130 30684	1N4002GP
6561	5322 130 30684	1N4002GP
6562	4822 130 31981	BZX79-C3V9

TRANSISTORS & IC'S

7000	4822 209 31064	TDA1301T/N1
7040	4822 130 40902	BF240
7041	4822 130 40937	BC548B
7042	4822 130 44197	BC558B
7043	4822 130 40937	BC548B
7044	4822 130 40937	BC548B
7060	4822 209 72587	TCA0372
7061	4822 209 72587	TCA0372
7100	4822 209 33166	SAA7345GP/M2A
7300	4822 209 33252	TDA1549T/N1
7301	4822 209 83274	NJM4560D
7360	4822 130 44197	BC558B
7361	4822 130 44197	BC558B
7362	4822 130 41344	BC337-40
7363	4822 130 41344	BC337-40
7364	4822 130 41344	BC337-40
7365	4822 130 41344	BC337-40
7500	4822 130 44197	BC558B
7535	4822 209 80891	MC7805CT
7540	5322 209 62115	MC79L15AC
7541	4822 130 40937	BC548B
7542	4822 130 41344	BC337-40
7543	4822 130 44197	BC558B
7560	4822 130 44197	BC558B
7600	4822 209 72587	TCA0372
7700	4822 209 33405	MC68HC11ER24/P158-06

ELECTRICAL PARTS LIST

MAIN PANEL

MISCELLANEOUS

1000	4822 242 73557	RESONATOR 8.46MHz
1050	5322 242 73686	RESONATOR 12MHz
1101	4822 242 81705	RESONATOR 33.8MHz
1250	4822 267 31729	DIGITAL OUT SOCKET
1300	4822 267 31731	ANALOG OUT SOCKET
1510 ⚠	4822 071 51002	FUSE RAD T 1A
1511 ⚠	4822 071 51002	FUSE RAD T 1A
1530 ⚠	4822 276 13489	MAINS SWITCH

CAPACITORS

2000	4822 122 10466	220pF 10% 50V
2001	4822 122 10466	220pF 10% 50V
2002	4822 122 10466	220pF 10% 50V
2003	4822 122 10466	220pF 10% 50V
2004	4822 122 10466	220pF 10% 50V
2005	4822 122 10466	220pF 10% 50V
2006	4822 126 12878	1,5nF 10% 16V
2007	4822 122 10459	560pF 10% 50V
2008	5322 124 21643	22µF 20% 40V
2009	4822 126 11585	22nF +80-20% 25V
2010	4822 126 11585	22nF +80-20% 25V
2011	5322 124 21643	22µF 20% 40V
2012	4822 126 11585	22nF +80-20% 25V
2013	5322 124 21643	22µF 20% 40V
2014	4822 126 12785	47nF TUB 50V
2025	5322 124 21643	22µF 20% 40V
2040	4822 126 10053	180pF 10%Y5P
2041	4822 126 10053	180pF 10%Y5P
2042	4822 126 12787	330pF 10% 50V
2043	4822 122 33848	47pF 5%SL 50V
2044	4822 122 33848	47pF 5%SL 50V
2045	4822 122 33195	100pF 10% 50V
2046	4822 126 12573	18pF 5% 50V
2047	5322 124 21643	22µF 20% 40V
2048	4822 126 12787	330pF 10% 50V
2049	4822 126 10053	180pF 10%Y5P
2050	4822 122 10466	220pF 10% 50V
2051	4822 126 11585	22nF +80-20% 25V
2052	5322 124 21643	22µF 20% 40V
2060	4822 126 12882	100nF +80-20% 50V
2062	4822 126 12882	100nF +80-20% 50V
2063	5322 121 42489	33nF 5% 250V
2064	4822 126 12882	100nF +80-20% 50V
2066	4822 126 12339	2,2nF 10% Y5Ω
2067	4822 126 12882	100nF +80-20% 50V
2068	4822 126 12148	2,7nF 10%
2069	4822 126 10053	180pF 10%Y5P
2071	4822 126 12882	100nF +80-20% 50V
2072	4822 126 12882	100nF +80-20% 50V
2074	4822 126 12882	100nF +80-20% 50V
2075	4822 126 13151	3,9nF 10%Y5Ω16V
2076	4822 126 10053	180pF 10%Y5P
2100	4822 126 12339	2,2nF 10% Y5Ω
2101	4822 122 33848	47pF 5%SL 50V
2102	4822 126 11585	22nF +80-20% 25V
2103	5322 121 42386	100nF 5% 63V
2105	4822 122 33195	100pF 10% 50V
2109	4822 122 33191	22pF 5% 50V
2110	5322 124 21643	22µF 20% 40V
2111	4822 126 12882	100nF +80-20% 50V
2112	4822 122 33848	47pF 5%SL 50V
2113	4822 122 33848	47pF 5%SL 50V
2114	4822 122 33197	1nF 10% 50V
2115	4822 126 11585	22nF +80-20% 25V
2117	4822 126 11585	22nF +80-20% 25V
2116	5322 124 21643	22µF 20% 40V
2118	4822 122 33848	47pF 5%SL 50V
2140	4822 126 12785	47nF TUB 50V
2141	4822 126 12882	100nF +80-20% 50V
2142	4822 122 33848	47pF 5%SL 50V
2251	4822 124 40248	10µF 20% 63V
2253	4822 126 12882	100nF +80-20% 50V
2300	4822 122 33519	470pF 10% 50V
2301	4822 122 33519	470pF 10% 50V
2302	4822 124 40433	47µF 20% 25V
2303	4822 124 40433	47µF 20% 25V
2304	4822 122 10573	56pF 5% 50V
2305	4822 122 10573	56pF 5% 50V
2306	4822 124 80408	4,7µF 20% 50V
2307	4822 124 80408	4,7µF 20% 50V
2308	4822 122 10466	220pF 10% 50V
2309	4822 122 10466	220pF 10% 50V
2310	4822 124 40433	47µF 20% 25V
2330	4822 126 12882	100nF +80-20% 50V
2331	4822 124 40433	47µF 20% 25V
2332	4822 126 12882	100nF +80-20% 50V
2333	4822 124 40433	47µF 20% 25V
2334	4822 126 12882	100nF +80-20% 50V
2335	4822 124 40433	47µF 20% 25V
2336	4822 126 12882	100nF +80-20% 50V
2337	4822 124 40433	47µF 20% 25V
2339	4822 124 40433	47µF 20% 25V
2531	4822 126 11585	22nF +80-20% 25V
2532	4822 126 11585	22nF +80-20% 25V
2533	4822 126 11585	22nF +80-20% 25V
2534	4822 126 11585	22nF +80-20% 25V
2535	4822 126 12882	100nF +80-20% 50V
2536	4822 124 41458	4700µF 20% 16V
2538	4822 124 80294	3300µF 20% 16V
2540	5322 124 22094	220µF 20% 50V

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2541	4822 126 12882	100nF +80-20% 50V
2542	4822 124 40184	1000µF 20% 10V
2560	4822 124 40849	330µF 20% 16V
2600	4822 126 12882	100nF +80-20% 50V
2601	4822 126 11585	22nF +80-20% 25V
2602	4822 126 11585	22nF +80-20% 25V
2701	4822 126 11585	22nF +80-20% 25V
2703	4822 126 11585	22nF +80-20% 25V

RESISTORS

3000	4822 116 52233	10k 5% 0,5W
3001	4822 116 52233	10k 5% 0,5W
3002	4822 116 52233	10k 5% 0,5W
3003	4822 116 52233	10k 5% 0,5W
3004	4822 116 52233	10k 5% 0,5W
3005	4822 116 52233	10k 5% 0,5W
3006	4822 050 11002	1k 1% 0,4W
3007	4822 050 11002	1k 1% 0,4W
3010	4822 116 52235	1M 5% 0,5W
3011	4822 116 52233	10k 5% 0,5W
3012	4822 116 52219	330Ω 5% 0,5W
3013	4822 050 11002	1k 1% 0,4W
3014	4822 116 52233	10k 5% 0,5W
3015	4822 116 52219	330Ω 5% 0,5W
3020	4822 050 11002	1k 1% 0,4W
3021	4822 116 52233	10k 5% 0,5W
3022 ⚠	4822 052 10478	4Ω7 5% 0,33W
3040	4822 116 52239	120k 5% 0,5W
3041	4822 116 52239	120k 5% 0,5W
3042	4822 116 52291	56k 5% 0,5W
3043	4822 050 11002	1k 1% 0,4W
3044	4822 116 52222	390Ω 5% 0,5W
3045	4822 116 52175	100Ω 5% 0,5W
3046	4822 116 52249	1k8 5% 0,5W
3047	4822 116 52276	3k9 5% 0,5W
3048	4822 116 52175	100Ω 5% 0,5W
3049	4822 116 52249	1k8 5% 0,5W
3050	4822 116 52223	430Ω 5% 0,5W
3051	4822 116 52223	430Ω 5% 0,5W
3052	4822 050 11002	1k 1% 0,4W
3053	4822 116 52267	30k 5% 0,5W
3054	4822 116 52272	330k 5% 0,5W
3055	4822 116 52175	100Ω 5% 0,5W
3056	4822 050 11002	1k 1% 0,4W
3057	4822 116 52277	39k 5% 0,5W
3058	4822 116 52175	100Ω 5% 0,5W
3059	4822 116 52284	47k 5% 0,5W
3060	4822 116 52233	10k 5% 0,5W
3062 ⚠	4822 052 10229	22Ω 5% 0,33W
3064	4822 116 52296	6k8 5% 0,5W
3065	4822 050 27502	7k5 1% 0,6W
3066	4822 050 21503	15k 1% 0,6W
3067	4822 116 52244	15k 5% 0,5W
3068 ⚠	4822 052 10229	22Ω 5% 0,33W
3069	4822 116 52233	10k 5% 0,5W
3070	4822 116 52244	15k 5% 0,5W
3071	4822 116 52296	6k8 5% 0,5W
3072	4822 116 52233	10k 5% 0,5W
3073	4822 116 52244	15k 5% 0,5W
3074 ⚠	4822 052 10229	22Ω 5% 0,33W
3075	4822 116 52233	10k 5% 0,5W
3076	4822 116 52283	4k7 5% 0,5W
3077	4822 116 52296	6k8 5% 0,5W
3078	4822 116 52244	15k 5% 0,5W
3079	4822 116 52244	15k 5% 0,5W
3100	4822 116 52256	2k2 5% 0,5W
3101	4822 116 52257	22k 5% 0,5W
3107	4822 116 52219	330Ω 5% 0,5W
3108	4822 116 52215	220Ω 5% 0,5W
3109	4822 116 52215	220Ω 5% 0,5W
3110	4822 116 52215	220Ω 5% 0,5W
3111	4822 116 52215	220Ω 5% 0,5W
3112	4822 116 52175	100Ω 5% 0,5W
3113 ⚠	4822 052 10338	3Ω3 5% 0,33W
3114	4822 116 52235	1M 5% 0,5W
3115 ⚠	4822 052 10338	3Ω3 5% 0,33W
3116	4822 116 52175	100Ω 5% 0,5W
3117	4822 116 52219	330Ω 5% 0,5W
3140	4822 116 52271	33k 5% 0,5W
3141	4822 116 52271	33k 5% 0,5W
3142	4822 116 52271	33k 5% 0,5W
3143	4822 116 52234	100k 5% 0,5W
3144	4822 116 52234	100k 5% 0,5W
3145 ⚠	4822 052 10229	22Ω 5% 0,33W
3146	4822 116 52175	100Ω 5% 0,5W
3147	4822 116 52283	4k7 5% 0,5W
3252	4822 116 52199	68Ω 5% 0,5W
3302	4822 116 52233	10k 5% 0,5W
3303	4822 116 52233	10k 5% 0,5W
3304	4822 116 52244	15k 5% 0,5W
3305	4822 116 52244	15k 5% 0,5W
3306	4822 116 52257	22k 5% 0,5W
3307	4822 116 52257	22k 5% 0,5W
3308	4822 050 11002	1k 1% 0,4W
3309	4822 050 11002	1k 1% 0,4W
3330 ⚠	4822 052 10338	3Ω3 5% 0,33W
3331 ⚠	4822 052 10338	3Ω3 5% 0,33W
3332 ⚠	4822 052 10338	3Ω3 5% 0,33W
3333 ⚠	4822 052 10478	4Ω7 5% 0,33W
3334 ⚠	4822 052 10478	4Ω7 5% 0,33W
3360	4822 116 52284	47k 5% 0,5W
3361	4822 116 52284	47k 5% 0,5W
3362	4822 116 52258	220k 5% 0,5W
3363	4822 116 52258	220k 5% 0,5W
3364	4822 116 52256	2k2 5% 0,5W
3365	4822 116 52256	2k2 5% 0,5W

3366		4822 116 52256	2k2 5% 0,5W
3367		4822 116 52256	2k2 5% 0,5W
3368		4822 116 52233	10k 5% 0,5W
3369		4822 116 52233	10k 5% 0,5W
3376		4822 050 11002	1k 1% 0,4W
3377		4822 050 11002	1k 1% 0,4W
3500		4822 116 52226	560Ω 5% 0,5W
3501		4822 050 11002	1k 1% 0,4W
3502		4822 116 52257	22k 5% 0,5W
3503		4822 116 52257	22k 5% 0,5W
3540		4822 116 52284	47k 5% 0,5W
3541		4822 116 52207	1k2 5% 0,5W
3542		4822 116 52283	4k7 5% 0,5W
3543		4822 116 52283	4k7 5% 0,5W
3544		4822 116 52257	22k 5% 0,5W
3545	⚠	4822 052 10478	4Ω7 5% 0,33W
3560		4822 050 11002	1k 1% 0,4W
3562		4822 116 52283	4k7 5% 0,5W
3563		4822 116 52283	4k7 5% 0,5W
3601		4822 116 52238	12k 5% 0,5W
3602		4822 116 52238	12k 5% 0,5W
3603	⚠	4822 052 10229	22Ω 5% 0,33W
3604		4822 116 52303	8k2 5% 0,5W
3606		4822 116 52238	12k 5% 0,5W
3607		4822 116 52238	12k 5% 0,5W
3700		4822 116 52258	220k 5% 0,5W
3701		4822 116 52257	22k 5% 0,5W
3703		4822 116 52257	22k 5% 0,5W
3706		4822 116 52257	22k 5% 0,5W
3707		4822 116 52257	22k 5% 0,5W
3708		4822 116 52257	22k 5% 0,5W
3709		4822 116 52257	22k 5% 0,5W
3710		4822 116 52257	22k 5% 0,5W
3711		4822 116 52257	22k 5% 0,5W
3714		4822 116 52257	22k 5% 0,5W
3715		4822 116 52233	10k 5% 0,5W
3716		4822 050 11002	1k 1% 0,4W
3717		4822 050 11002	1k 1% 0,4W
3718		4822 050 11002	1k 1% 0,4W
3719		4822 050 11002	1k 1% 0,4W
3720		4822 050 11002	1k 1% 0,4W
3723		4822 116 52257	22k 5% 0,5W

COILS

5010	4822 157 62552	2,2µH
5100	4822 157 62552	2,2µH
5250	4822 157 70601	DIG. OUT TRANSFO

DIODES

6360	4822 130 30621	1N4148
6361	4822 130 30621	1N4148
6500	4822 130 31981	BZX79-C3V9
6535	5322 130 30684	1N4002GP
6536	5322 130 30684	1N4002GP
6537	5322 130 30684	1N4002GP
6538	5322 130 30684	1N4002GP
6540	4822 130 83362	1N4004GP
6541	4822 130 34278	BZX79-C6V8
6542	4822 130 30621	1N4148
6543	5322 130 30684	1N4002GP
6544	4822 130 30621	1N4148
6560	5322 130 30684	1N4002GP
6561	5322 130 30684	1N4002GP
6562	4822 130 31981	BZX79-C3V9

TRANSISTORS & IC'S

7000	4822 209 31064	TDA1301T/N1
7040	4822 130 40902	BF240
7041	4822 130 40937	BC548B
7042	4822 130 44197	BC558B
7043	4822 130 40937	BC548B
7044	4822 130 40937	BC548B
7060	4822 209 72587	TCA0372
7061	4822 209 72587	TCA0372
7100	4822 209 33166	SAA7345GP/M2A
7300	4822 209 33252	TDA1549T/N1
7301	4822 209 83274	NJM4560D
7360	4822 130 44197	BC558B
7361	4822 130 44197	BC558B
7362	4822 130 41344	BC337-40
7363	4822 130 41344	BC337-40
7364	4822 130 41344	BC337-40
7365	4822 130 41344	BC337-40
7500	4822 130 44197	BC558B
7535	4822 209 80891	MC7805CT
7540	5322 209 62115	MC79L15AC
7541	4822 130 40937	BC548B
7542	4822 130 41344	BC337-40
7543	4822 130 44197	BC558B
7560	4822 130 44197	BC558B
7600	4822 209 72587	TCA0372
7700	4822 209 33405	MC68HC11ER24/P158-06

DISPLAY & HEADPHONE PANEL

MISCELLANEOUS

	4822 256 92151	DISPLAY HOLDER
1020	4822 276 13114	TACT SWITCH
1021	4822 276 13114	TACT SWITCH
1022	4822 276 13114	TACT SWITCH
1023	4822 276 13114	TACT SWITCH
1024	4822 276 13114	TACT SWITCH
1025	4822 276 13114	TACT SWITCH
1026	4822 276 13114	TACT SWITCH
1027	4822 276 13114	TACT SWITCH
1028	4822 276 13114	TACT SWITCH
1029	4822 276 13114	TACT SWITCH
1030	4822 276 13114	TACT SWITCH
1031	4822 276 13114	TACT SWITCH
1032	4822 276 13114	TACT SWITCH
1033	4822 276 13114	TACT SWITCH
1034	4822 276 13114	TACT SWITCH
1035	4822 276 13114	TACT SWITCH
1036	4822 276 13114	TACT SWITCH
1037	4822 276 13114	TACT SWITCH
1038	4822 276 13114	TACT SWITCH
1039	4822 276 13114	TACT SWITCH
1040	4822 214 52009	IR RECEIVER GP1U58XP
1041	4822 276 13114	TACT SWITCH
1042	4822 276 13114	TACT SWITCH
1043	4822 276 13114	TACT SWITCH
1044	4822 276 13114	TACT SWITCH
1045	4822 276 13114	TACT SWITCH
1046	4822 276 13114	TACT SWITCH
1047	4822 276 13114	TACT SWITCH
1371	4822 267 31453	HEADPHONE SOCKET
1450	4822 130 91329	DISPLAY 8-BT-153GK
1502	4822 242 72527	RESONATOR 4MHz

CAPACITORS

2002	5322 124 21643	22µF 20% 40V
2003	4822 126 11585	22nF +80-20% 25V
2370	4822 126 11585	22nF +80-20% 25V
2371	4822 122 33197	1nF 10% 50V
2372	4822 122 33197	1nF 10% 50V
2373	4822 122 33197	1nF 10% 50V

RESISTORS

3370	4822 101 21199	10kX2 20% 0,025W
3371	4822 116 52233	10k 5% 0,5W
3372	4822 116 52233	10k 5% 0,5W
3373	4822 116 52244	15k 5% 0,5W
3374	4822 116 52244	15k 5% 0,5W
3375	4822 116 52206	120Ω 5% 0,5W
3386	4822 116 52206	120Ω 5% 0,5W
3400	4822 116 52284	47k 5% 0,5W
3401	4822 116 52257	22k 5% 0,5W
3402	4822 116 52257	22k 5% 0,5W
3403	4822 116 52257	22k 5% 0,5W
3404	4822 116 52257	22k 5% 0,5W
3409	4822 116 52257	22k 5% 0,5W
3410	4822 116 52257	22k 5% 0,5W
3411	4822 116 52258	220k 5% 0,5W

DIODES, TRANSISTORS & I.C.'s

6400	4822 130 30613	BAW62
6401	4822 130 30613	BAW62
6402	4822 130 30613	BAW62
6403	4822 130 30613	BAW62
6404	4822 130 30613	BAW62
6405	4822 130 30613	BAW62
6406	4822 130 30613	BAW62
7370	4822 209 83274	NJM4560D
7400	4822 209 30249	TMP47C212AN

MAINS VOLTAGE

5001 ▲	4822 146 31337	MAINS TRANSFO /00B
5001 ▲	4822 146 31338	MAINS TRANSFO /01B
5001 ▲	4822 146 31339	MAINS TRANSFO /05B

DISPLAY & HEADPHONE PANEL

MISCELLANEOUS

	4822 256 92151	DISPLAY HOLDER
1020	4822 276 13114	TACT SWITCH
1021	4822 276 13114	TACT SWITCH
1022	4822 276 13114	TACT SWITCH
1023	4822 276 13114	TACT SWITCH
1024	4822 276 13114	TACT SWITCH
1025	4822 276 13114	TACT SWITCH
1026	4822 276 13114	TACT SWITCH
1027	4822 276 13114	TACT SWITCH
1028	4822 276 13114	TACT SWITCH
1029	4822 276 13114	TACT SWITCH
1030	4822 276 13114	TACT SWITCH
1031	4822 276 13114	TACT SWITCH
1032	4822 276 13114	TACT SWITCH
1033	4822 276 13114	TACT SWITCH
1034	4822 276 13114	TACT SWITCH
1035	4822 276 13114	TACT SWITCH
1036	4822 276 13114	TACT SWITCH
1037	4822 276 13114	TACT SWITCH
1038	4822 276 13114	TACT SWITCH
1039	4822 276 13114	TACT SWITCH
1040	4822 214 52009	IR RECEIVER GP1U58XP
1041	4822 276 13114	TACT SWITCH
1042	4822 276 13114	TACT SWITCH
1043	4822 276 13114	TACT SWITCH
1044	4822 276 13114	TACT SWITCH
1045	4822 276 13114	TACT SWITCH
1046	4822 276 13114	TACT SWITCH
1047	4822 276 13114	TACT SWITCH
1371	4822 267 31453	HEADPHONE SOCKET
1450	4822 130 91329	DISPLAY 8-BT-153GK
1502	4822 242 72527	RESONATOR 4MHz

CAPACITORS

2002	5322 124 21643	22µF 20% 40V
2003	4822 126 11585	22nF +80-20% 25V
2370	4822 126 11585	22nF +80-20% 25V
2371	4822 122 33197	1nF 10% 50V
2372	4822 122 33197	1nF 10% 50V
2373	4822 122 33197	1nF 10% 50V

RESISTORS

3370	4822 101 21199	10kX2 20% 0,025W
3371	4822 116 52233	10k 5% 0,5W
3372	4822 116 52233	10k 5% 0,5W
3373	4822 116 52244	15k 5% 0,5W
3374	4822 116 52244	15k 5% 0,5W
3375	4822 116 52206	120Ω 5% 0,5W
3386	4822 116 52206	120Ω 5% 0,5W
3400	4822 116 52284	47k 5% 0,5W
3401	4822 116 52257	22k 5% 0,5W
3402	4822 116 52257	22k 5% 0,5W
3403	4822 116 52257	22k 5% 0,5W
3404	4822 116 52257	22k 5% 0,5W
3409	4822 116 52257	22k 5% 0,5W
3410	4822 116 52257	22k 5% 0,5W
3411	4822 116 52258	220k 5% 0,5W

DIODES, TRANSISTORS & I.C.'s

6400	4822 130 30613	BAW62
6401	4822 130 30613	BAW62
6402	4822 130 30613	BAW62
6403	4822 130 30613	BAW62
6404	4822 130 30613	BAW62
6405	4822 130 30613	BAW62
6406	4822 130 30613	BAW62
7370	4822 209 83274	NJM4560D
7400	4822 209 30249	TMP47C212AN

MAINS VOLTAGE

5001 ⚠	4822 146 31337	MAINS TRANSFO /00B
5001 ⚠	4822 146 31338	MAINS TRANSFO /01B
5001 ⚠	4822 146 31339	MAINS TRANSFO /05B

PHILIPS

Sachgebiet: AC 52 CD

SI Wichtig für die Werkstatt!

Nummer: 52140

Datum: 30.09.1994

Service Information

Betrifft: CD-Spieler CD740
Service-Hinweise

Verteiler: INTERN und EXTERN

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1. Fokusfehler
   Durch das Zusammenwirken von Eigenschaften des Laufwerkes CDM12.1 und des Servo-IC TDA1301 kann es bei einem ganz besonderen Plattenfehler ("white dropout" mit einer Dauer von ca. 100µs) zum Aussetzen der Fokussierung kommen, obwohl CD's mit diesem Fehler noch dem Standard entsprechen.
   Zur Verbesserung der Fokusfunktion in solchen Fällen wird den beiden Photodioden D2 und D3 ein kleiner Offset-Strom zugeführt. Dazu sind am Servo-IC TDA1301 je ein Widerstand 3M9 von Pin 4 (VRH) nach Pin 5 und nach Pin 6 zugefügt worden.

   Widerstand 3M9 — 4822 050 23905

2. Resetfunktion
   Zur Verbesserung der Resetfunktion bei höheren Umgebungstemperaturen ist ab Fertigungsstart der Resetpegel von 4V auf 4.5V erhöht worden durch Ändern des Widerstandes 3500 (Service Manual S.27; Decoderschaltbild).

   3500 (560E) geändert in 150E — 4822 116 52211

3. Decoder-IC
   In Geräten aus Fertigung ab Woche 9420 ist das Decoder-IC 7100 (SAA7345GP/M2A) ersetzt worden durch SAA7345GP/M5.
   Die beiden Ausführungen sind n i c h t k o m p a t i b e l !

   Mit der Einführung der .../M5-Version ist die Oszillator-Beschaltung des Decoder-IC geändert worden:
   - R3117 (330E) ersetzt durch Drahtbrücke
   - C2112 (47pF) geändert in 22pF — 4822 122 33191
   - C2113 (47pF) geändert in 10pF — 4822 122 33847

   Anmerkung: Im Service Manual (S.27) sind die Positionsnummern für 2112 und 2113 vertauscht.

   Bei Ersatz des Decoder-IC 7100 ist auf die verwendete Ausführung zu achten; beide Versionen sind verfügbar:
   7100 SAA7345GP/M2A — 4822 209 33166
   7100 SAA7345GP/M5 — 4822 209 33339

Form 80048

4812 829 52140

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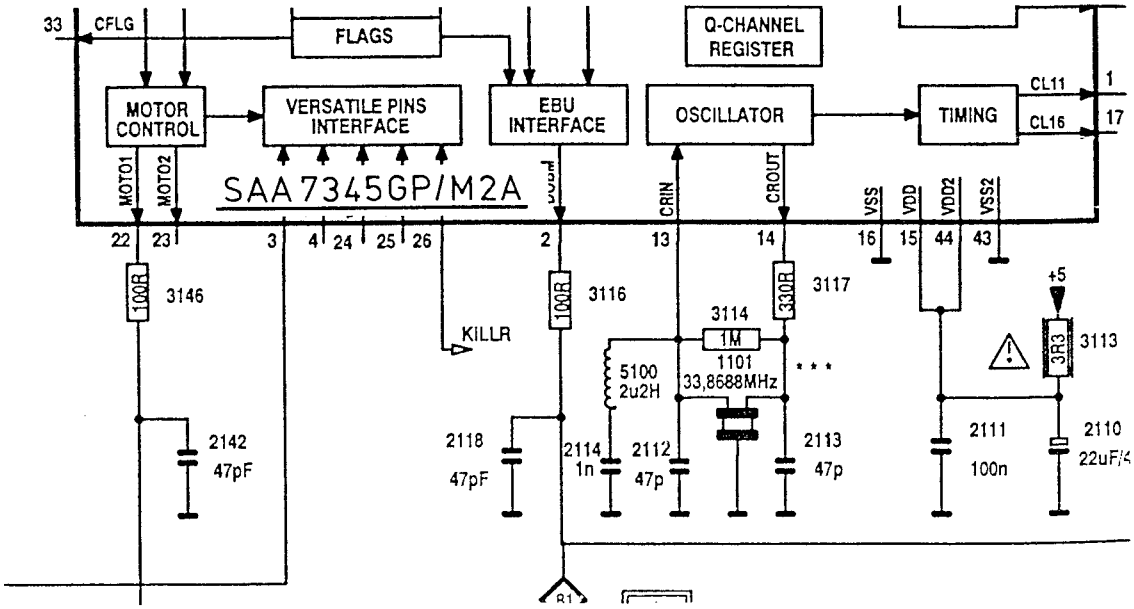
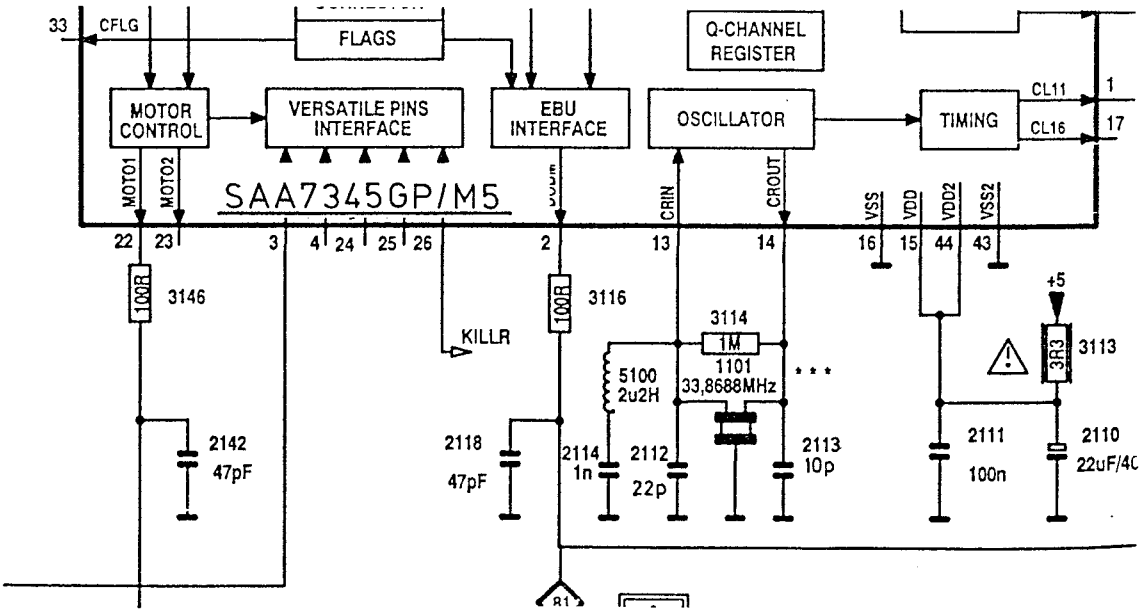
Nachdruck nicht gestattet! Änderungen vorbehalten.

Soll eine IC-Version durch die andere ersetzt werden, dann muß die Oszillator-Beschaltung angepaßt werden (s. Abb.).





4. Netzteil
Von Beginn der Fertigung an ist als Diode 6540 (Service Manual, S.25) nicht der Typ 1N4002 sondern 1N4004 verwendet worden.

6540	1N4004	4822 130 83362

5. HF-Verstärker
Von Beginn der Fertigung an ist der Wert des Kondensators 2050 (Service Manual, S.26) nicht 330pF sondern 220pF.

2050	220pF	4822 122 10466